



Texas Educators Academies Collaborative for Health Professions Southeast Educational Symposium (TEACH-S) 2020

Presented by:

Baylor College of Medicine Academy of Distinguished Educators

The University of Texas Medical Branch at Galveston Academy of Master Teachers

McGovern Medical School at UT Health Academy of Master Educators

The University of Texas MD Anderson Cancer Center

COMPENDIUM OF SUBMITTED ABSTRACTS

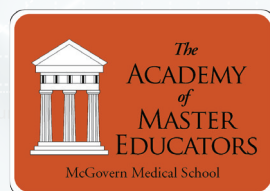


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PREFACE

As the Chair of the Baylor College of Medicine, Academy of Distinguished Educators, it is my pleasure to present to you the abstracts submitted to the 2020 *Texas Educators Academies Collaborative for Health Professions Southeast Educational Symposium (TEACH-S)*. This annual, one-day symposium provides a forum for showcasing scholarly innovations from the regional community of educators. The event is alternately hosted by one of the four presenting institutions, yet is attended by faculty, staff, and trainees from multiple institutions in Southeast Texas and occasionally from other parts in Texas.

The theme of this year's symposium was, "*Curriculum Innovation and its Impact on Educator Identities*" and was planned to be hosted by Baylor College of Medicine on May 7, 2020 in the Onstead Auditorium. Dr. Neil Osherooff, PhD, Professor of Biochemistry and Medicine at Vanderbilt University School of Medicine and current President of the International Association of Medical Science Educators (IAMSE), was invited to present the morning keynote address on "*Integration across the Medical Curriculum: How clinicians and scientists can work together to educate the next generation of professionals*" along with an afternoon workshop titled, "*Who are you? Effects of changing educational roles on faculty identity.*"

The call for abstracts went out in early February, and we received 91 submissions, with 4 subsequently withdrawn by the authors. Abstracts may be submitted for a poster or oral presentation, workshop, demonstration, or small group discussion.

Regrettably, the TEACH-S symposium was cancelled due to the COVID-19 pandemic.

At the time of cancellation, the abstracts had not been peer-reviewed. Still, to honor and disseminate the scholarly contributions of so many dedicated educators, we wished to compile all submitted abstracts into this book that is posted on the Baylor College of Medicine, TEACH-S website. As such, educators will be able to add their abstract submission to their list of accomplishments by referencing this website: <https://www.bcm.edu/education/academic-faculty-affairs/faculty-resources/faculty-development/conferences>

On behalf of all of the TEACH-S 2020 organizers, I would like to thank all individuals who submitted an abstract. Please continue your excellent work! I also like to especially thank the Baylor College of Medicine TEACH-S 2020 Planning Committee for their efforts.

We hope to see you next year, at the TEACH-S 2021 Education Symposium!
Thank you again, and please be safe.

Sincerely,

David A. Young, M.D., M.Ed., M.B.A.
Professor of Anesthesiology
Chair, Academy of Distinguished Educators
Baylor College of Medicine
Houston, Texas

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Educational Entity: The University of Texas Medical Branch at Galveston Academy of Master Teachers

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Educational Entity: The University of Texas MD Anderson Cancer Center

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Educational Entity: Baylor College of Medicine, University of Rochester, Stanford University, University of Washington, Yale University, Columbia University

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Educational Entity: Baylor College of Medicine

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: Baylor College of Medicine

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: Baylor College of Medicine, Texas Woman's University, Harris Health System

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Educational Entity: Baylor College of Medicine

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Lazarus, Melanie, M.P.H.; Pattison, Donna, Ph.D.; Richdale, Kathryn, O.D., Ph.D.; Hausmann, Robert, Ed.D.; Reeve, Kay, DrPH; Schmidt, Lacey, Ph.D.

Educational Entity: University of Houston

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Educational Entity: Baylor College of Medicine

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Luke, Sheba, DNP, APRN, FNP-C, NEA-BC; Rounds, Linda, Ph.D., RN, FAANP, FAAN; Murphy, Kathleen, DNP, RN, NEA-BC, FAAN

Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: Texas A&M University College of Medicine

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Educational Entity: UT Southwestern

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: UTHealth School of Dentistry

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Educational Entity: Baylor College of Medicine

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Educational Entity: Texas A&M University; Ohio Health & Science University; Pennsylvania State University College of Medicine

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: UT Southwestern

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Educational Entity: Baylor College of Medicine; Emory University School of Medicine

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: The University of Texas Medical Branch at Galveston; University of Arizona College of Medicine

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: The University of Texas Medical Branch at Galveston

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Wiggs, Carol, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

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Wiley, Zachary, B.S.; Go, Jonathan, B.S.; Lin, Sophie, B.S.; Moturu, Anoosha, B.S.; Stewart, Diana, M.D., M.B.A.; Andrabi, Sara, M.D.

Educational Entity: Baylor College of Medicine

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: Baylor College of Medicine; University of Houston at Clear Lake; University of Houston School of Dentistry

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Educational Entity: UT MD Anderson Cancer Center

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Educational Entity: Baylor College of Medicine; Columbia University

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Educational Entity: Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: Baylor College of Medicine

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Educational Entity: Baylor College of Medicine

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Educational Entity: UT MD Anderson; McGovern Medical School at UTHealth

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Educational Entity: Baylor College of Medicine; Rutgers University

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Educational Entity: UTHealth School of Dentistry

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: Baylor College of Medicine

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: Baylor College of Medicine

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Educational Entity: Texas A&M College of Medicine

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Educational Entity: Baylor College of Medicine

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Educational Entity: Baylor College of Medicine

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Educational Entity: UT Southwestern; UT Arlington

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: Baylor College of Medicine

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Educational Entity: Baylor College of Medicine

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Educational Entity: McGovern Medical School at UTHealth

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Szauter, Karen, M.D.; West, Holly; Dawlett, Marie

Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: Baylor College of Medicine

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Educational Entity: Baylor College of Medicine

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Educational Entity: Baylor College of Medicine; UTHealth McGovern Medical School

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Burns, Adurea, Ph.D.; Gilelspe, Susan, M.D.; Tatem, Andria, M.D.; Nichols, Julieana, M.D.

Educational Entity: Baylor College of Medicine

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Educational Entity: Baylor College of Medicine

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Educational Entity: Baylor College of Medicine

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: Baylor College of Medicine

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Educational Entity: McGovern Medical School at UTHealth

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Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: Baylor college of Medicine

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Lim, Jonathan, M.D.; Tatem, Andria, M.D.

Educational Entity: Baylor College of Medicine

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Educational Entity: Texas A&M University College of Medicine

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Miller, Michael, M.D.; Banks, Pierre, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: McGovern Medical School at UTHealth

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Szauter, Karen, M.D.; Buck, Era, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

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Educational Entity: McGovern Medical School at UTHealth

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West, Holly, DHed, PA-C; Everling, Kathleen, Ph.D.; Monteiro, Marconi, Ed.D.; Buck, Era, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

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Everling, Kathleen, Ph.D.; West, Holly, DHEd, MPAS, PA-C, CCRP, DFAAPA

Educational Entity: Educational Entity: The University of Texas Medical Branch at Galveston

D2

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Fadial, Tom, M.D.

Educational Entity: McGovern Medical School at UTHealth

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Lunstroth, Rebecca, J.D., M.A.; Koshy, Anson, M.D.; Robles, Tiffany, M.D.

Educational Entity: McGovern Medical School at UTHealth

SGD2

Is High Reliability Organization (HRO) in Medical Education Necessary?

McKluskey, Kristine, M.H.S.

Educational Entity: Baylor College of Medicine; University of Houston

SGD3

Development of a Flipped Classroom and Online Modules to Teach Advocacy and Social Determinants of Health in Medical Education

McKay, Sandra, M.D.; Ford, Christine; Guardiola, Amalia; Ashtari, Elehah; Wang, Litao; Andrews, Jane

Educational Entity: McGovern Medical School at UTHealth

SGD4

Lessons Learned: Building a Comprehensive Step 1 Preparation Program

Shields, Stacy, Ph.D.; Levine, Ruth, M.D.; Perez, Norma, M.D., DrPH

Educational Entity: The University of Texas Medical Branch at Galveston

POSTER ABSTRACTS

P1

Expanding the Scope of Professional Behavior Assessment: Do Two Systems of Reporting Identify Distinctive Issues?

Ainsworth, Michael, M.D.; Szauter, Karen, M.D.

Educational Entity: The University of Texas Medical Branch at Galveston

Processes to identify students with professional behavior lapses should incorporate input from diverse sources. The authors describe a system that includes reports from faculty (in the academic setting) and simulated patients (in structured clinical encounters) which identify more behaviors in a greater number of students than either system alone.

Background

Our institution uses an Early Concern Note (ECN) program to allow faculty and staff to report student unprofessional behavior. The program uses a multi-step process that separates initial reports from the academic record and emphasizes informal supportive counseling.

Our students work with simulated patients (SPs) throughout training. Based on SP feedback that students were exhibiting concerning behaviors not captured by existing checklists, we developed an SP-Note of Concern (SP-NOC) for SPs to report behaviors impacting encounter quality.

Hypothesis

We questioned whether the two reporting processes identify the same students, and whether overlap exists in the types of behaviors reported.

Methods

We reviewed ECNs and SP-NOCs from 2010-2019 to identify the type/frequency of behaviors, and compare behaviors for students receiving both note types. ECNs highlight issues with professional responsibility, motivation/insight, and personal interactions. SP-NOCs, emphasize Verbal (things the students said/did not say), Action (did/did not do) and Appearance/Behavior (demeanor) that were professionally concerning. The two databases were combined; analysis included assessing student frequencies and content of the reports.

Results

We reviewed 587 ECNs (the majority describing professional responsibility lapses) and 1438 SP-NOCs (the majority focused on Appearance/Behavior). Of 1226 unique students, 21.6% received only ECN(s), 62.8% only SP-NOC(s), and 15.6% received both. Content of ECNs and SP-NOCs focused on different behaviors, even where students received both types of reports.

Conclusion

We found ECNs and SP-NOCs identified unique troubling behaviors, potentially serving complementary roles for identifying and assisting students. Although SP-NOCs were created to empower the standardized patients to openly express concerns about student behaviors, they now serve as a resource to give direct individualized feedback, engage with course directors for frequent/class-wide transgressions, and to identify students with repeated issues related to patient interactions – an area not typically captured with ECNs.

P2

The Efficacy of Simulation-based Education (SBE) in Patient Access Representative (PAR) Training

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Educational Entity: The University of Texas MD Anderson Cancer Center

Simulation-based education increases confidence of PARs when combined with didactic training. Simulation is an effective way to teach interpersonal skills in a psychologically safe environment and should be considered an integral component of a robust training program to teach and validate learner behaviors.

Background

The Patient Access Representative (PAR) is the patient or provider's first point of contact with a healthcare institution. They are responsible for patient intake and registration processes. They collect patient demographic information to include insurance and payer data and establish the patient's first appointment. PARs are expected to deliver an excellent patient experience in every phone call. Orientation and refresher course for the new and seasoned PAR is a crucial component to ensure that they are prepared to fulfill this expectation. Previously, our institution used didactic sessions to conduct PAR training. A simulation-based education session was developed to augment existing PAR training and validate learner knowledge and confidence.

Aim

To assess the effects of a simulation-based education program on the confidence of PAR following didactic training.

Design/Method

Two four-hour fully immersive, high fidelity simulations were implemented following didactic training of which included a lecture and video examples of expert PAR telephone conversations. The simulation was designed using a traditional simulation technique followed by reflective debriefing. Psychological safety was established and teamwork instruction was included in the design. Simulation-based education focused on telephonic skills, empathy, clear communication, and accurate documentation. A researcher-developed tool was implemented to measure perceived confidence before and after simulation-based training. A paired-samples t-test was conducted to evaluate the impact of the simulation intervention on learner confidence.

Results

Sixty-one (N=61) learners participated in the training conducted between July 2019 and February 2020. There was a statistically significant increase in confidence level pre-simulation (M=5.66, SD= 2.27) and post-simulation (M=8.92, SD=0.95), $t(60) = -12.25$, $p < .0005$ (two-tailed).

Conclusion

Simulation-based education increases the confidence of PARs when combined with didactic training. Simulation is an effective way to teach interpersonal skills in a psychologically safe environment and should be considered an integral component of a robust training program to teach and validate learner behaviors.

P3

Creation and Implementation of an Introductory Emergency Medicine Curriculum: Helping Medical Students Decide

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Educational Entity: UT Southwestern

Using data gathered from current medical students, we created a two-week introductory Emergency Medicine course that provides learners with a rudimentary knowledge of the field of EM. This aids students in the process of choosing a specialty and allows them to gain vital exposure in a critically important field.

Background

Although it has elements applicable to many specialties, Emergency Medicine (EM) is not a required clerkship at all medical schools. Many medical students struggle to decide which specialty they wish to pursue and exposure to different fields via elective courses aids in the decision-making process. Additionally, students benefit from exposure to the specialty by improving their comfort with emergencies (EPA-10).

Goal

This curriculum development project aims to revise an existing four-week Introduction to EM elective using the results of a needs assessment survey of medical students.

Methods

This curriculum is a modification of the existing Introduction to Emergency Medicine elective for MS2s and MS3s at our institution. A survey of current medical students (MS2-4) allowed us to gain insight into what aspects of elective courses should be emphasized, and what methods students felt optimized their learning. We used previously published curriculum guidelines to provide materials for a self-paced learning process via the Learning Management System.

Results: Survey results from students showed that they preferred a two-week course in order to learn about the field and help choose a specialty. The pre-existing course was shortened to two weeks and an online, self-paced curriculum was designed. The didactic materials reflect the four-week curriculum designed by Tews et al. for the Clerkship Directors in Emergency Medicine. This curriculum was shortened to fit the preferred timeline and was supplemented by additional learning materials in accordance with survey results in which students described their preferred methods of learning.

Conclusion

The revision of our Introduction to Emergency Medicine elective into a two-week EM course exposes students to the core precepts of EM earlier in medical school clerkships, aiding students in their choice of specialty. This curriculum can be utilized in other institutions to improve EM education throughout the US medical system.

P4

Identifying Tailored Solutions to Complex Challenges in Training Physicians-Scientists: Outcomes of the 2019 Pediatric Academic Societies Scholarly Session

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Educational Entity: Baylor College of Medicine, University of Rochester, Stanford University, University of Washington, Yale University, Columbia University

Background: Although the leaky physician-scientist pipeline has been described for decades, there continues to be a challenge to understand how to promote career development of physician-scientists during residents. The National Pediatrician-Scientist Collaborative Workgroup is working with thought-leaders to propose novel tailored solutions to institutional challenges in training physician-scientist residents. The training pipeline for physician-scientists begins in medical school, transitions to residency and fellowship training, and finally to junior faculty at an academic institution. The pipeline for the physician-scientist workforce is endangered by inadequate recruitment, limited funding, and attrition. The National Institutes of Health, the American Board of Pediatrics and others in the pediatric academic community have expressed great concern about the vulnerability of the pipeline, recognizing physician-scientists as a critical link in the advancement of child health through their work in developing innovative tailored therapies.

Objectives: The National Pediatrician-Scientist Collaborative Workgroup (NPSCW) was created in August of 2018 and represents over 12 children hospitals across geographical regions to create models of excellence for the sustainability and success of physician-scientist development and training in residency, fellowship, and junior faculty and advocate for strengthening the physician-scientist pipeline to advance improvement of global child health.

Methods: Meeting monthly via conference call, the national workgroup was tasked with aggressively developing work products to provide a unified voice in developing training guideposts. A national needs assessment survey was submitted and approved by the BCM Institutional Review Board along with the Association of Pediatric Program Directors (APPD) Research and Scholarship Learning Community for dissemination to residency program directors at all ACGME accredited residency programs. The goal of the needs assessment is to identify the structure of training, operations, and support for physician-scientists during residency. Furthermore, to gather the input of various stakeholders including program directors, chairman, trainees, and educational leaders, three sessions were held by the workgroup at both APPD (one workshop) and the Pediatric Academic Society (an ancillary session and hybrid hot topics symposia) to discuss current challenges in training.

Results: The workshops and hybrid sessions at both the PAS and APPD meetings were a large success with gathering feedback around the need to develop guideposts for all residents across training backgrounds interested in becoming a pediatrician-scientist. The national needs assessment survey was approved for dissemination by APPD and will launch in August of 2018.

Conclusion: It is critical to begin dialogue within pediatrics around the best models for training pediatrician-scientists during residency to strengthen the pediatrician-scientist pipeline. The National Pediatrician-Scientist Collaborative Workgroup represents a unique collaborative whose mission and vision is intricately aligned with developing best practices during residency development. Future updates from the workgroup will shed light on the current structure of training through the future data from the national needs assessment.

P5

Online Resources in Plastic Surgery Education: A Toolbox for the Modern Plastic Surgeon

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Educational Entity: Baylor College of Medicine

Plastic surgery is a rapidly evolving field that requires novel approaches in education to address the increasing time and skills demands from residents. Here we discuss the current model of plastic surgery education and the challenges of meeting its goals and suggest reasons by which online resources close this gap.

Plastic surgery is a rapidly evolving field that requires novel approaches in providing continuous and dynamic educational resources to address the increasing time and skills demands from residents. Online resources in their various forms, such as books, journals, simulators, and applications, are increasingly used by residents, notably over traditional print and in-person counterparts. In this digital era, it is imperative to understand the scope and utility of online resources that have the potential to revolutionize plastic surgery education. Our goal is to create a framework within which learners and educators are able to organize online resources in plastic surgery. In this literature review of plastic surgery education, we first discuss the current model of plastic surgery education and the challenges of meeting its goals, and then suggest reasons by which online resources close this gap. Given the novel nature of this investigation, primary literature comprised the majority of our research. We synthesized the common findings among different studies with a data-centered approach and then generated a discussion about their significance in the current educational model for plastic surgery. We also offer an exposition on the benefits of distinct types of resources and current trends regarding their use. We conclude with a concise argument in favor of adopting the use or referencing of these resources given their significant potential to enhance effective and rapid collaboration within the field.

P6

A Novel Approach Integrating Basic Science to Patients Unresponsive to the Standard of Healthcare

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Educational Entity: Texas A&M University

Rationale

A major learning objective achieved through this course, is that students will build confidence and learn to write a peer-review quality case report that will inform the medical and scientific communities on how new scientific knowledge can be translated into clinical therapies. Students in good academic standing will collaborate with clinical and basic research mentors during a year-long project to propose mechanistic solutions on exceptional patient case reports encountered in one of their clerkships. Research and the scientific method are driving forces for medical advances. Physicians increasingly need skills for evaluating basic research articles that report advances that shape new approaches to patient care, and then incorporate these approaches to the care and treatment of their patients. To address this challenge, an innovative pilot longitudinal elective was developed by faculty at TAMU to promote self-directed learning that integrates basic science and clinical medicine during students' clinically focused training, an ongoing integration challenge for medical education.

Objectives

This pilot course aims to integrate robust foundational basic science into the clinical clerkship curriculum by promoting critical thinking, self-regulated learning skills, and the ability to synthesize emerging scientific technologies to transform prevention, detection and therapy that decreases long-term side effects of high mortality diseases.

Methods

Through directed literature searches, students will develop mechanistic concept maps linking basic science to emerging therapies for unresolved clinical problems. Students then deliver a concept map and write a case study for submission to a high-quality peer-reviewed journal. Course milestones will include research methodology modules and PubMed searching interspaced with cycles of concept map revision, peer-learning sessions and faculty mentoring.

Anticipated Results

Students will develop a personalized clinical concept map of a patient they encountered in a clerkship and analyze the long-term feasibility of the selected mechanisms described in the literature to improve their patient clinical manifestations. With a strategic systematic mentoring plan in place, this course is expected to enhance educational and/or research collaborations between basic scientists and clinicians. Publications co-authored by students and mentoring faculty will give students a competitive edge in residency matching.

Conclusions

It is anticipated that this exercise will create a supportive culture for clerkship medical students with primary identity as clinicians to engage in life-long participation in scholarly research. Acquainting future physicians with the mindset of basic researchers will help to establish a foundation for more effective interactions between physicians and basic researchers to advance healthcare. Moreover, students may find relevant scientific information with unrecognized therapeutic applications. Additional scholarly benefits anticipated will be the augmentation of the academic portfolio of medical students and enhancement of their ability to compete for positions in top residency programs.

P7

Mindfulness Training in a Physician Assistant Curriculum

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Educational Entity: The University of Texas Medical Branch at Galveston

The burnout of healthcare professionals over the last decade has turned into an epidemic. It is no secret as to the detrimental effects this can have to personal well-being and patient care. PA students were introduced to an innovative curriculum of mindfulness, wellness techniques and stress reduction strategies.

Background/ Rationale

The growing trend of health provider burnout not only has a negative impact on the provider but patients as well. In recent years, national organizations have taken notice. The Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) released new standards effective September 2020. One of these standards includes the following:

B2.20 The curriculum must include instruction about provider personal wellness including the prevention of impairment and burnout.

As a response to this, an innovative pilot course was created.

Goal/ Hypothesis

Levels of mindfulness will increase after the intervention and PA students will note changes in levels of perceived stress as reflected on the post-test survey.

Methods

A cohort of self-selected physician assistant students (n= 10) enrolled in an elective course offered in the spring semester of the didactic year. The course was led by a mindfulness-based stress reduction (MBSR) trained instructor. A total of eight class sessions combined with home practice was incorporated into the curriculum based on the philosophies of MBSR techniques. Activities consisted of mindful breathing, various forms of meditation, yoga, Qigong, Tai Chi, journaling, and other informal and formal practices.

Results

Pending

Data will be gathered anonymously at the end of the spring semester (April 2020) following the intervention and a confidential post-test survey. Questions will center on self-awareness, changes of level of mindfulness, changes of levels of perceived stress, and reactivity to the environment.

Conclusion

Health provider burnout can affect patient safety, and might lead to unprofessional conduct, compassion fatigue, depression, addiction, or even suicide. By teaching students early how to deal with the demands of PA school and by incorporating mindfulness techniques and stress reduction strategies in the PA curricula, students will then have the tools and coping skills they need for resilience in moving forward in their career.

P8

Impact of Holistic Admissions on Enrollment of Underrepresented Minorities

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Educational Entity: Baylor College of Medicine

A well-established physician assistant program's experience implementing holistic review in their admissions process. How did it affect their applicant pool, interviewed applicants, and enrolled students? Are there lessons learned from this process that can help other institutions considering this change?

Background

Recommendations call for increasing the number of underrepresented minorities (URMs) in the healthcare work force as a means of increasing minority populations' access to care. Many institutions have adopted holistic admissions strategies to create more diverse student bodies to address and improve racial, ethnic, and cultural concordance in the healthcare setting. This program recently followed suit for applicants seeking admission to the program. Little research has been done on use of this approach by physician assistant programs.

Goal

The purpose of this study was to examine the relationship between the program's recent admissions policy changes and its impact on the enrollment of underrepresented minorities (URMs) and identify applicant factors exerting a significant influence on applicant admission to the same program.

Methods

This retrospective cross-sectional study reviewed a total of 7,500 applicants who applied to the program from 2012 to 2018. Designations and additional demographics to include race, age, gender, ethnicity, grade point average (GPA) and graduate record examination (GRE) scores were obtained. Descriptive statistics were used to assess admission rates of URMs per year, and bivariate logistic regression was used to elicit factors with significant influence on being enrolled to the program ($P < 0.05$).

Results: Of those enrolled, the majority were white in every cohort ($>75\%$). Asian applicants were enrolled second most, and the remaining races each made up $<5.0\%$ in every cohort. Mean enrollment of URMs in cohort one through four was 15.84% and 11.55% for cohorts five and six. Applicant factors with significant influence on enrollment included both GPA measures and the analytical writing and verbal reasoning GRE.

Conclusion

This study provided preliminary information to support continued analysis with the purpose of learning how best to foster success in URMs through enrollment to the program. Additional studies are needed to further characterize the impact of holistic review.

P9

A Comprehensive Approach to Program Evaluation of Mid-course Feedback

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Educational Entity: The University of Texas Medical Branch at Galveston

A comprehensive program evaluation examined mid-course feedback processes and outcomes comparing pre and post-intervention years. The intervention incorporated the Learning Management System into the process and provided faculty training. The process conversion was effective and differences in facilitator performance were significant. This approach facilitated identifying targets for future intervention.

Rationale

Mid-course feedback represents an important LCME metric. Routine program evaluation indicated performance was below target.

Goal

We undertook a comprehensive program evaluation considering both processes and outcomes to illuminate areas for improvement.

Methods

The evaluation approach was twofold: 1) moving the paper-based process into the Learning Management System (LMS) and 2) requiring faculty development mid-way through each course. The LMS allowed process evaluation in real time for feedback meetings. Training for all Problem Based Learning (PBL) facilitators included a model for meaningful feedback and instruction on the LMS.

We reviewed metrics from divergent sources as part of the evaluation. Data from the LMS included completion rates for feedback forms and student attestations of meetings. For outcome evaluation, we examined end-of-course surveys including students' evaluations of facilitators. We compared rates of affirmative reports with the previous year, calculating proportions relative to target performance. Student ratings of faculty specific to feedback and overall ratings were compared using paired t-tests.

Results

Students' self-assessments, facilitator evaluations of students, and their attestations for receiving mid-course feedback approximated 100%. At the course level, during the pre-intervention year, 5 of 14 evaluation opportunities were below performance targets of 90% (range .773 - .995). During the post-intervention year, we observed only 2 reports below target related to the same course and a more restricted range (.849-.996) with increases for three courses reaching statistical significance ($p < .05$). Faculty level data revealed an increase in reports of mid-course feedback ($t = -3.8$; $p < .003$) and in the overall ratings of facilitators by students (MS1 $t = -2.73$, $p < .019$; MS2 $t = -7.865$, $P < .00001$).

Conclusion

Evaluation indicated the process for feedback was working and identified specific courses where provision and monitoring of feedback is problematic, providing targets for ongoing intervention. However, we continue to find gaps between process and outcome measures, raising questions for future work.

P10

A Case-Based Discussion to Review Infectious Disease Therapeutics in a Graduate Physician Assistant Studies Program

Guillory, Ashley, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

This poster describes a case-based review session for infectious disease therapeutics along with student feedback for the session. This format can be useful in developing review sessions for other pharmacology topics that students struggle with.

Infectious disease therapeutics have historically been a difficult topic for the physician assistant students at University of Texas Medical Branch. Average test scores on the exam covering these topics are typically 5-10 points below the class average of other exams. In order to improve students' test scores and understanding of this material, a case-based review session was added at the end of the infectious disease module.

The review session began with a short lecture (~30 minutes) reviewing high yield concepts as preparatory material. The lecture slides were made available to students 2 days prior to the review session. Students were divided into small groups and assigned 1-2 short cases covering the different classes of infectious disease therapeutics. Each case included questions related to choosing the most appropriate treatment, the pharmacological characteristics of the treatment, and alternatives due to patient characteristics such as renal failure, pregnancy, and hepatic insufficiency. Students worked through cases in their small groups then reconvened to present their case and answers to the entire class. A post-session survey was given to determine both student satisfaction with the session as well as the impact of the session on their knowledge and understanding of the material. Effectiveness was assessed by the test scores on the exam for the infectious disease module.

Prior to the review session, 82% of survey respondents indicated that they lacked confidence in their knowledge of infectious disease topics. Following the review session, only 23% of respondents indicated that they still lacked confidence in their knowledge of these topics. 97% of survey respondents indicated that the review session was beneficial with the majority of respondents indicating that it was very beneficial. The survey also included a free response question for students to offer feedback on the session and ways to improve the session. Themes that were discovered in these answers included: 1) students felt that they should have studied more before attending the session, 2) have the cases instructor led rather than the majority of the discussion happen in the individual groups, and 3) incorporate the case studies into the lecture portion. Overall, the response to the review session was largely positive and the feedback will be useful for improving the review session next year. This format will be useful in developing review sessions for other pharmacology topics that the students struggle with.

P11

The Effect of Simulated Patient Death on Participant's Self-Confidence

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Educational Entity: McGovern Medical School at UTHealth

This is a prospective observational study that aims to determine if the self-confidence, sometimes referred to as self-efficacy, of participants in high fidelity simulation cases is affected by death of the simulated patient.

Background

The effects of simulated patient death on student learners' self-confidence has not been well studied. Prior studies have considered outcomes such as anxiety, stress, and emotional responses in the presence of simulated patient death. Only a few studies have specifically investigated if participants' self-confidence is significantly altered by simulated patient death. This prospective observational study was designed to establish if there exists a correlation between participant's self-confidence and simulated patient death.

Goal

- To compare participants' self-confidence after completing a case with simulated patient death to their self-confidence after completing a case without simulated patient death.
- To determine if the order of simulation cases, one with patient death and one without, affects participants' self-confidence.

Methods

This is a prospective observational study of third-year medical students in the emergency medicine elective at McGovern Medical School. Based on course month, students are randomly divided into two groups and each group completes two simulation cases. Group A completes a case with simulated patient death (case 1) followed by a case in which the patient does not die (case 2). Group B completes the cases in the reverse order. After each case, students complete a survey of self-confidence based on a validated confidence scale.

Results

Final results are still pending project completion. The self-confidence scores reported after the individual cases will be compared to determine if there is a significant difference in learner confidence between the two cases. Also, the self-confidence scores reported by group A will be compared to that of group B to determine if the order of the cases impacted subjects' self-confidence.

Conclusion

The final conclusion will be made upon project completion. This study aims to help educators better understand the role of simulated patient death and how it could be used for the benefit of medical student education.

P12

Validation of the PBL Self-Assessment Tool: An Instrument Designed to Facilitate PBL Faculty Reflection

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Educational Entity: The University of Texas Medical Branch at Galveston

PBL is widely used in medical education. PBL facilitation requires a series of tasks to promote satisfactory learning. Self-assessment can assist faculty to reflect on their performance as PBL facilitators. This project developed and validated a self-assessment tool to help faculty reflect on performance and maintain standards in PBL facilitation.

Background

Problem based learning (PBL) is an effective teaching strategy to help students develop critical thinking and problem solving skills. PBL facilitators need diverse skills to promote satisfactory student learning. Effective facilitators engage in systematic reflection including self-assessment to identify facilitation task(s) for which they may need continuous improvement. No self-assessment tool specific for PBL facilitators in undergraduate medical education has been reported in the literature.

Goal

This project describes the development and validation of a self-assessment instrument for PBL facilitators.

Methods

A review of literature identified over 200 small group facilitation skills. These skills were consolidated into 50 items, organized under four subscales: preparation, facilitation, documentation, and reflection. An expert panel reviewed the 50 items using a modified Delphi technique to reach consensus on essential PBL facilitation skills for the construction of a self-assessment inventory. The panel conducted three rounds of ratings, review, and revision of the 50-item set. The resulting inventory was piloted by medical school faculty facilitating PBL small groups. Cronbach's alpha coefficients and comparisons between instrument and student evaluation of facilitators were computed for reliability and validity. The project was waived by IRB as quality improvement.

Results/Outcomes

Expert panel reached consensus on 18 items to be included in the instrument. Items were organized under three subscales: preparation, facilitation, and reflection; no item remained for "documentation" subscale. The final instrument used a four-point Likert scale and a comments section for response. Faculty (n=26) in two courses piloted the instrument yielding an overall Cronbach's alpha of 0.91. No significant difference was found between student evaluations and facilitator self-assessment.

Conclusion

Self-assessment can help facilitators engage in systematic reflection that would enhance effective facilitation. Use of the PBL facilitator Self-Assessment tool may assist facilitators to maintain expected standards as they reflect.

P13

Medical Students' Perceptions of Effective Learning Practices in Preclinical Education

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Educational Entity: McGovern Medical School at UTHealth

As third-party resources have grown in popularity, faculty have observed a shift in student learning and a decline in attendance. To understand this phenomenon, we examined medical students' perceptions of effective learning practices, which is crucial for informing curriculum development that meets the needs of learners while delivering meaningful content.

Background

Third-party study resources, such as podcasts, online questions banks, and video streaming services, are a mainstay for many medical students. To students, online learning tools allow for self-paced, organized, and efficient learning. Increased utilization of these resources has become a pressing issue to faculty, who have noticed decreased classroom attendance and are concerned about the efficacy of these resources. To remedy this, faculty integrated problem-based and team-based learning sessions, flipped classrooms, and sessions involving live patients. Though these strategies have made students more receptive to attendance, they have not resolved the perceived deficit in attendance.

Goal

The project aims to examine medical students' perceptions of effective learning practices, which is crucial for informing curriculum development that meets the needs of learners while delivering meaningful content.

Methods

Twenty second-year medical students from McGovern, a large medical school in an urban, academic center, were interviewed individually. Qualitative analysis of transcripts was conducted.

Results

The following themes emerged as drivers of student learning

- Focus on clinical and Step 1 material
- Emphasis on assessment: questions from faculty, self-assessments
- Select for educators and materials that teach from the perspective of the learner
- Content: organized and methodical; avoids 'information dumping'

Discussion

Students identified benefits for both faculty-led sessions and online material. Students report that faculty-led sessions provide a clinical framework that can be applied for real and theoretical cases. Students believe that online material allows for efficient learning of highly organized and essential content tailored to USMLE Step 1; this affords them more time to assess their understanding with board-style questions. Both students and faculty would benefit from curricula that allow faculty to share clinical insights on material that students have studied independently from third party resources. Classroom time could focus on higher order content or difficult clinical scenarios, rather than reiterating first-order information.

P14

Comparing the Merit and Worth of Two Pilot IPE Activities in a Neurology Clerkship

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Educational Entity: Baylor College of Medicine, Texas Woman's University, Harris Health System

Inter-professional Education has become a major area of focus for many healthcare professions. Course directors are often tasked with implementing new curricula due to accreditation requirements. On our Neurology clerkship, we collaborated with PT programs in two pilot IPE experiences. Our experience and comparison of the IPE activities are summarized.

Rationale

Inter-professional Education (IPE) is when two or more professions learn with, from, and/or about each other. The Liaison Committee of Medical Education (LCME) standard 7.9 requires IPE activities in clinical courses and course directors are tasked with implementing new curricula to meet the standard. These changes often compete for valuable teaching time and must be carefully considered and evaluated for relevance in an already compressed schedule.

Goal

We piloted two IPE activities to introduce medical students to the interaction between neurology and physical therapy (PT). Our goal was to determine if 1) students were able to accomplish the objectives, 2) the IPE activity was sustainable, and 3) students felt the IPE experience was valuable.

Method

Pilot 1 was a two-hour interactive lab session where PT students and MS3-4 students discussed traumatic brain injury cases. Pilot 2 included two four-hour sessions where PT neurology residents, PT students, and MS2-3 examined patients together and discussed goals of care. Students self-assessed their ability before and after to actively listen, express ideas, describe their own role, understand others' abilities and contributions, recognize how others' skills complemented their own, and account for others' ideas. Students completed the same evaluation form in both pilot IPE experiences using a 5-point Likert scale. A Mann-Whitney U test was used to calculate significance. A debriefing was held with the medical students after both activities to obtain qualitative data, regarding student impressions and sustainability of the activity.

Results

35 students completed Pilot 1, including 6 MS and 29 PT students. 14 learners complete the second IPE activity, (7 MS, 2 PT neurology residents, and 5 PT students). All students completed the evaluations (n=49 completed evaluations) and 10 MS (6 from Pilot 1, 4 from Pilot 2) participated in the debriefing.

PT and MS in both activities listed significant change in 1) their ability to "understand the abilities and contributions of IPE team members", 2) "recognize how others' skills and knowledge complement and overlap with my own", and 3) "take into account the ideas of IPE team members."

Conclusion

As educators, it is difficult to create sustainable and authentic experiences in IPE. We created two IPE activities that students rated as valuable and increased their understanding of the other profession. Our comparison of the two IPE activities demonstrates how IPE activities may be considered for future curricular content.

P15

Teaching Evidence-Based Medicine to Medical Students Using Team-Based Learning

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Educational Entity: Baylor College of Medicine

This study evaluates the use of team-based learning in teaching the principles of clinical evidence-based medicine to second-year medical students.

Background

The Association of American Medical Colleges has identified the formation of clinical questions and retrieval of evidence to advance patient care as one of the Core Entrustable Professional Activities for entering residency. A team-based learning (TBL) approach can foster increased student engagement and improve learning outcomes. However, few studies have examined the use of TBL to teach the principles of clinical evidence-based medicine (EBM) in the undergraduate medical setting.

Goal/Hypothesis

This study evaluated a TBL approach to teaching EBM to medical students.

Methods

We designed a nine-session clinical EBM course for second-year medical students, with an emphasis on critical appraisal of the literature, biostatistics and epidemiology, diagnostic testing, and meta-analysis/systematic review. We incorporated a team-based learning framework consisting of a preparatory phase followed by an in-class individual readiness assurance process and team application exercise. On the post-course evaluation, students rated the course on a 7-item Likert scale from 1 (below expectations) to 7 (exceeds expectations) and provided written feedback. Student perceptions of the course were analyzed using descriptive statistics and thematic analysis of qualitative feedback.

Results

Students rated the overall course quality 5.67, 4.88, and 5.21 during the past three iterations of the course, respectively. Students performed uniformly well (mean course scores 96.2, 94.1 and 96.5). From evaluation comments, students felt that the course was particularly useful in learning how to critically appraise and succinctly summarize a study and present papers on clinical rounds. Some students enjoyed the group discussions and TBL format but felt that a smaller classroom setting would have been more appropriate. A few students preferred the traditional lecture-based approach.

Conclusion

The course was well-received by students and resulted in strong knowledge acquisition, as measured by final course grades. Further research is needed on engaging students in the TBL process.

P16

Facilitating Health Professions Faculty Development with an Interprofessional Team-Based Learning Model

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Educational Entity: University of Houston

Through interprofessional collaboration, the University of Houston College of Medicine successfully delivered a four-part TBL faculty development workshop series reaching 139 learners from eight colleges and 65% of College of Medicine course directors. This poster describes the best practices used to successfully develop and execute this series.

Background/Rationale

Faculty development can encourage the use of active instructional methodology such as Team-Based Learning (TBL) in modern health professions classrooms. Despite the teaching experience possessed by the faculty at the newly founded University of Houston (UH) College of Medicine, few had specific expertise in TBL implementation, and the use of TBL across all other UH health professions colleges was low.

Goals/Hypothesis

To ensure early incorporation of best pedagogical practices into UH College of Medicine curricular design, training in TBL had to be developed and implemented with the ultimate goal of educating at least 50% of College of Medicine course directors and at least one member from each of the participating colleges.

Methods

The College of Medicine, in partnership with the Colleges of Natural Sciences and Mathematics, Optometry, Education, Pharmacy, and Nursing, and Office of Faculty Engagement & Development designed and implemented a four-session faculty development TBL workshop series. Topics covered included evidence supporting the use of TBL, implementation of the three phases and six steps of TBL, the use of clinical cases, and how to manage and organize groups. A targeted marketing strategy was used to reach potential learners from each college, and sessions were taught in lecture and TBL format. Each topic was offered twice and recorded to accommodate busy faculty schedules.

Results: Attendees came from across the UH campus, and a total of 139 learners from eight colleges were trained from September through December 2019. Sixty-eight percent of UHCOM course directors attended at least one session, and nine faculty members completed the entire program.

Conclusion

Through interprofessional collaboration, the College of Medicine successfully designed and delivered TBL faculty training. Cross-college partnership best practices, thoughtful instructional methods, real-time troubleshooting, and support from the Provost's office provided a platform for success.

P17

Does a Strategically Placed Visual Aid Enhance Education and Correct Administration of Sugammadex?

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Educational Entity: Baylor College of Medicine

With the recent advent of a revolutionary neuromuscular blockade reversal agent called sugammadex, it is not known whether anesthesia trainees know the correct dosing and possible adverse effects of the medication. We designed a visual aid with the medication facts and placed it on the nerve stimulator machine which is routinely used before a reversal agent is given.

Background

Medication administration is a perpetual patient safety issue in the field of anesthesiology. Sugammadex is a new revolutionary neuromuscular blockade reversal agent; however, it is not known whether anesthesiology trainees know the dosing requirements and adverse reactions. Possible barriers to unfamiliarity include not having the time nor access to find the information intraoperatively. In order to make the medication information easily accessible and convenient, we placed a colorful visual card on the nerve stimulator machine which is routinely used before a neuromuscular blockade reversal agent is given.

Goal

The purpose of this study was to investigate whether a visual aid strategically placed on a nerve stimulator enhanced the anesthesiology trainee's education of sugammadex.

Methods

Thirty-four anesthesiology trainees were divided into the control and study groups. IRB approval was obtained. Each trainee was given a pre-test on knowledge assessment about sugammadex and a post-test after three weeks in the operating room. Only the study group had the three-week exposure to the visual aid which was placed in every operating room. A pre and post-intervention survey asking questions about the trainee's experience with sugammadex was also administered at their respective times.

Results

The Wilcoxon rank sum test compared pre, post, and change in assessment scores between the control and study arms. There was no significant difference in pre-assessment scores between the two arms ($P=0.917$). However, there was a significant difference in post-assessment scores between the control and study arms ($P=0.047$). The change in assessment score (post minus pre) between study arms was also significant ($P=0.037$). Survey results showed 77% of trainees used the visual aid for dosing recommendations and 94% felt that it not only helped them remember the dose but that referring to the visual aid was much faster than looking up the dose by other means. Eighty-two percent stated that the visual aid heightened their vigilance of adverse reactions in patients.

Conclusions

A visual aid placed strategically and conveniently on the nerve stimulator was shown to increase trainees' knowledge about sugammadex. Use of the visual aid aided in dosing the medication correctly and educated trainees on adverse reactions.

P18

Active Learning Simulation: Using the Walk in the Woods Strategy to Learn Negotiation Skills

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Educational Entity: The University of Texas Medical Branch at Galveston

Negotiation is at the heart of leadership and policymaking. The poster describes a simulation using “A Walk in the Woods”, a strategy that emerged from US-Soviet negotiations. The simulation includes the step-by-step method for identifying interests of key stakeholders and arriving at a consensus providing students with hands-on negotiating experience.

One of the most used strategies to promote health care policy is face-to-face communication with policymakers and stakeholders, an essential skill in a leadership role. Doctor of Nursing Practice (DNP) students participate in a simulated negotiation between stakeholders discussing a designated health policy. Students utilize a negotiation method “Walk in the Woods”, described by Marcus, Dorn, and McNutly (2012). The name originated in 1982 when American and Soviet negotiators came to a compromise on arms reduction while walking in the woods in Geneva, Switzerland. The aim of the activity is to teach students a structured method for conflict resolution and negotiation. The four steps described using this framework are 1) revealing interests 2) enlarging interests 3) enlightened interests and 4) aligning interests.

Students are divided into groups and assigned a health policy topic as the focus of the negotiation. Each student is given a role and brief instructions for the simulation which occurs over a 20-30-minute period. The objective is for students to reach a consensus regarding the status of the proposed health policy. At the conclusion of the simulation, each group debriefs within their assigned group. In addition, they share successes, challenges, and comments with the entire class. The students also complete a workbook as a group, and individually write a short paragraph on lessons learned from the simulation and the analysis using the Walk in the Woods framework.

The step-by-step approach in negotiating teaches the students how to identify their personal stake in the issue, listen to their opposition, brainstorm about potential solutions, and acknowledge what they have learned from each other before concluding on an issue. In conclusion, the simulation is an active learning method which fully engages each student in the group as they learn a negotiation strategy which is valuable in a variety of situations.

Marcus, L., Dorn, B., & McNulty, E. (2012). The walk in the woods: A step-by-step method for facilitating interest-based negotiation and conflict resolution. *Negotiation Journal*, 28(3), 337-349. <http://libux.utmb.edu/login?url=http://dx.doi.org/doi:10.1111/j.1571-9979.2012.00343.x>

P19

Clinical Reasoning Essentials: A Simulation-based Course to Reduce Cognitive Errors among Healthcare Professionals

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Educational Entity: Texas A&M University College of Medicine

Course design with a series of innovative simulations aimed at illustrating the impact of cognitive biases on clinical decision-making and patient outcomes. Evaluative feedback from learners demonstrated that the simulations enhanced their awareness of the role of cognitive biases on clinical reasoning that impact patient diagnoses.

Background

Cognitive biases have been linked to 28% of diagnostic errors and up to 17% of adverse events in hospitals. In 2016, The Joint Commission of quality improvement and patient safety released an advisory that recommended health care professionals mitigate the impact of cognitive biases by implementing cognitive promoting strategies. There was no guidance or formal training that prepared learners to apply these strategies. Therefore, this clinical reasoning course was designed to illustrate the impact of cognitive biases on clinical decision-making and patient outcomes and reflect on preventing cognitive errors.

Goal

Educate healthcare professionals and trainees about common cognitive biases that impact clinical decision-making through blended learning strategies and illustrate the need for metacognition and situational awareness.

Methods

Between August 2018 and October 2019, a series of optional courses were presented to 64 health professionals and trainees, including physicians, residents, medical students, registered nurses, nursing students, pharmacists, respiratory therapists, psychologists, registered dietitians, and non-clinical support staff. The course design included an integration of didactic, interactive, and simulation-based strategies that guided learners through scenarios where cognitive biases led to medical errors and patient mortality. The simulated activity debriefings allowed learners to reflect on their actions and thought processes.

Results

At the end of each course, participants were provided a seven-question paper evaluation seeking feedback on the learning level appropriateness, quality of simulation, and knowledge gained. Out of 28 completed evaluations, 86% self-disclosed that the course increased their confidence in recognizing how their cognitive biases impacted patient care, and 78% self-disclosed that they were to apply the acquired knowledge in practice.

Conclusion

Identification of cognitive biases is a crucial aspect of clinical decision-making. Implementation of the clinical reasoning course demonstrated an effective approach in teaching healthcare professionals and trainees to mitigate the impact of cognitive biases using clinical reasoning safeguard strategies.

P20

Transition to Clerkships: An Oral Presentation Workshop

Mikesky, Leah, B.A.; Barker, Blake, M.D.

Educational Entity: UT Southwestern

The oral case presentation is a notoriously difficult-to-teach skill. This pilot workshop was aimed at rising clerkship students to describe, define, and demonstrate high quality oral presentation skills. Statistically significant survey results suggest that the workshop was effective in its objectives and could better equip students for clinical training.

Introduction

The oral case presentation (OCP) is an important and difficult to teach aspect of clinical training, traditionally taught “on the job” with little standardization and high stakes. Studies show that students desire a more rigid outline for presentations, while clinicians think of the OCP as an adaptable, evolving, and individualized. In this pilot study, we created an Oral Presentation Workshop for rising Clerkship students. Learning objectives included describing, defining, and demonstrating high quality oral presentation skills and differentiating specialty nuances.

Methods

The 2-hour Oral Presentation Workshop included a PowerPoint and time to craft and role-play oral presentations. Students received a generalized OCP rubric and specialty-specific presentation pocket cards. Afterwards, students took a Retrospective-Pre and Post survey. Data were analyzed using a Wilcoxon Signed-rank test.

Results

172 completely anonymous student survey responses were recorded. A Wilcoxon signed-rank test showed a statistically significant increase from pre to post workshop in level of comfort for all questions ($p=0.0001$).

| Question | Z-Value | Positive Ranks | Negative Ranks | Ties |
|---|---------|----------------|----------------|------|
| Progress Note Format | -8.735 | 98 | 3 | 71 |
| Progress Note Content | -8.622 | 96 | 3 | 73 |
| Oral Presentation Format | -9.499 | 111 | 1 | 60 |
| Oral Presentation Content | -9.188 | 104 | 1 | 67 |
| Oral Presentation Delivery to Attending | -9.469 | 110 | 1 | 61 |
| Describing the purpose of OCP | -7.362 | 82 | 8 | 82 |
| Naming/ordering OCP components | -8.755 | 99 | 4 | 69 |

Conclusions

The significant results of this pilot course suggest that this workshop was effective in its objectives and could equip rising clerkship students for the wards. For all 7 survey questions the number of students that had an increase in comfort (Positive Ranks) nearly doubled those who had a decrease in comfort (Negative Ranks), or stayed the same (Ties). Student feedback was largely positive, with many appreciative comments of the pocket cards and grading rubric.

P21

Validation of Non-Clinician Ratings of Medical Student Clinical Reasoning through a Problem-Solving Rubric

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Educational Entity: The University of Texas Medical Branch at Galveston

A decentralized family medicine clerkship implemented an asynchronous online active learning exercise to promote application of knowledge and facilitate assessment of clinical reasoning. This study describes the validation process for using the Problem-Solving Value Rubric (PSVR) to assess clinical reasoning of medical students through written responses to clinical problems.

Background

A decentralized family medicine clerkship implemented an asynchronous online active learning exercise to promote application of knowledge and facilitate assessment of clinical reasoning. Assessment of clinical reasoning utilizing written products is a novel approach in medical education. Validation of an assessment instrument with non-clinician raters may offer opportunities to analyze student clinical reasoning development across the curriculum.

Goal

To describe the validation process for non-clinicians using the Problem-Solving Value Rubric (PSVR) to assess clinical reasoning of medical students.

Methods

Students explained in short essays the clinical reasoning for their responses to MCQs. Using the PSVR, a six-component instrument developed by the Association of American Colleges and Universities (AAC&U), two non-clinicians rated responses of students enrolled in a family medicine clerkship to determine their level of clinical reasoning. Family medicine faculty vetted the PSVR and calibrated the instrument. Each component of the PSVR was reviewed and consensus reached regarding levels of clinical reasoning established by the PSVR.

Two calibration meetings took place between non-clinicians for training and rating adjustment. Cohen's Kappa and interrater ratings correlation coefficients were used for interrater reliability. A random sample of responses was sent to two family physicians for comparison of clinician and non-clinician ratings.

Results

Student PSVR ratings had a mean of 2.25 and standard deviation of 0.55 (n=115). All indications of inter-rater agreement improved after calibration sessions: Cohen's Kappa=0.62 and inter-rater correlation=0.69. PSVR results provided meaningful discrimination of student clinical reasoning.

Conclusion

The PSVR may be used to assess clinical reasoning of medical student written responses. Validation of the PSVR with non-clinicians offers the opportunity to utilize trained non-clinicians to assess clinical reasoning. Given time constraints of clinician faculty, non-clinicians may assess crucial constructs related to learner development in health professions education. Next step will compare PSVR to other clinical reasoning assessment tools.

P22

Reflection and Scholarship in Medical Education: Analysis of a Discontinued Pilot Curriculum

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Educational Entity: The University of Texas Medical Branch at Galveston

This study describes a systematic analysis of a discontinued educational innovation through reflection, and planning workshops. Results indicated overall participant satisfaction and fostered the creation of focused faculty learning communities for the promotion of faculty resilience and educational scholarship.

Background: The discontinuation of an innovative pilot curriculum project resulted in a sense of loss among participating faculty and administrative staff and professionals. This project facilitated reflection and creation of faculty learning communities after curricular experiment. It aimed to facilitate healing among curriculum participants. Reflection is essential to professional competence, and to lasting, transformative, and self-directed learning. Faculty learning communities (FLC) are designed to build community around teaching and learning, engage faculty, nourish scholarship of teaching, and encourage reflection about teaching.

Goal: To describe implementation and results of a reflective analysis of a discontinued pilot curriculum.

Methods: Three half-day workshops were conducted:

- Student-centered symposium. Students presented reflections upon their experience with curriculum. Table discussions focused on presentation content, lessons learned, and “learning issues” for further inquiry.
- Appreciative inquiry workshop. Faculty, administration, and staff responded to prompts related to pilot: (a) Favorite memory; (b) Most satisfying, promising, or inspiring aspects; and (c) Questions/learning issues to be addressed by scholarship. Session ended with a “what next” conversation.
- FLC workshop. External consultant moderated discussions toward formation of faculty learning communities around curriculum-generated themes. Participants grouped around four themes: clinical reasoning; professional identity formation; integration of basic science and clinical practice; and assessment. Research questions and plan for scholarly activities were generated.

Results: Fifty-eight individuals participated in project activities. Evaluations showed high satisfaction (on 5-point scale, means of 4.96; 4.82; and 4.97 per activity respectively). Comments indicated that the project reached objectives of facilitating reflection, generating ideas for scholarship, and initiating a sense of healing. Four FLCs were established around the project-generated themes.

Conclusion: It is essential to analyze innovations as they are implemented and, whatever the results, build upon lessons learned. A systematic analysis of a discontinued curricular innovation helped provide closure and generate options for healing, growth, and scholarship.

Summary: This study describes a systematic analysis of a discontinued educational innovation through reflection, and planning workshops. Results indicated overall participant satisfaction and fostered the creation of focused faculty learning communities for the promotion of faculty resilience and educational scholarship.

P23

Pre-Dental Students' Perception in Learning Head and Neck Anatomy via Plastinated Specimens at the University of Texas School of Dentistry

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Educational Entity: UTHealth School of Dentistry

A one-day head and neck anatomy workshop was created to assess pre-dental students' opinions and experience of learning anatomy from plastinated specimens. Data collected from pre- and post-tests and feedback surveys not only revealed significant improvement on participants' baseline knowledge of anatomy, but also increased confidence levels in their learning.

Background

Anatomy is one of the most important curricular necessities in health professional education. Students with previous anatomy coursework have had a positive impact in anatomy course performance in health professional schools. In addition, many programs in the U.S. have created pre-matriculation courses that give students an initial, low-stakes exposure to the anatomical sciences. These courses have shown positive results in helping students transition to professional schools. At The University of Texas School of Dentistry (UTSD), head and neck anatomy is the primary focus in the anatomy curriculum. In 2016, UTSD underwent a significant reform by replacing cadaveric specimens with plastinated prosections.

Goal

The purpose of this study was to assess pre-dental students' opinions and experiences of learning anatomy via plastinated specimens through a one-day head and neck anatomy workshop.

Methods

50 pre-dental students participated in this workshop. Pre-tests and post-tests were administered to the participants to assess their learning outcome. A post-workshop survey was also used to assess participants' feedback of the program.

Results

Pre-tests and post-tests revealed that students scored about 30% higher in the post-tests compared to the pre-tests. Approximately 60% of the participants preferred more lab time compared to lecture and over 90% plan to refer to the workshop lecture content in their future anatomy class.

Conclusions

Data from the pre- and post-tests as well as from the feedback surveys not only revealed significant improvement on participants' baseline knowledge of anatomy but also increased participants' confidence levels in the subject matter. The use of the plastinated specimens allowed participants to see all the intricate anatomical structures of the head and neck that would normally be difficult to find on cadavers. Currently, there is lack of literature on pre-matriculation courses designed specifically for dental students and our findings could imply the benefits of creating these courses to help future dental students.

P24

Empowering International Medical Students to Champion a Global Consortium in Allergy/Immunology Careers and Mentorship

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Educational Entity: Baylor College of Medicine

Global differences for medical professionals from limited-resource world regions struggle for access to diagnostics and implementation of patient care. Such differences have direct implications on learning for doctors-in-training. An initiative by/for international medical students (MS) from limited-resource settings to collaborate with a rich-resource medical center was designed to enhance clinical competence and scholarly achievements for careers in Allergy/Immunology (AI).

Background

Global differences for medical professionals from limited-resource world regions struggle for access to diagnostics and implementation of patient care. Such differences have direct implications on learning for doctors-in-training.

Hypothesis

An initiative by/for international medical students (MS) from limited-resource settings to collaborate with a rich-resource medical center can be designed to enhance clinical competence and scholarly achievements for careers in Allergy/Immunology (AI).

Methods

Needs Assessment Model/Community Coalition Action Theory for “Empowerment and Collaboration” In 2019, an Alpha/Pilot of 8 international MS rotating to a US AI academic center created a focus group to partner with US and global faculty/post MS trainees to champion a consortium initiative that would empower global trainees in a rich-resource AI training experience, not otherwise available to them. Consortium elements: (1) Curriculum; (2) Scholarly projects; (3) Mentorship (peer-faculty); (4) Reflection; (5) Global sharing. Venues: on-site; global conferencing; project meetings; timelines; networking/social media

Results

Global MS “homes”: Mexico (5), Ecuador (1), Turkey (1) and Thailand (1); global languages English, Spanish, Japanese, Arabic, Turkish and Thai; global faculty: Mexico, Turkey, Venezuela, Thailand. Scholarly MS outcomes/1-year: 4 abstracts, 3 manuscripts, 10 oral presentations (2 international), 3 posters, 6/8 declared AI careers (2/8, Rheumatology; Pulmonary); 1 course scholarship; 8 non-MS global trainees; 2 ethics courses. Bonus: US and global faculty encountered cultural awareness/opportunities supporting promotion; Consortium global impact of MS multiple campuses TechSalud, Mexico; US impact of faculty promotion content.

Conclusion

International MS are competent, motivated and can be positioned for a successful career trajectory when engaged in an inclusive peer-driven/faculty-induced mentoring/ resource-rich learning-teaching environment. Founding MS now serve as empowered leaders/peer mentors of their Consortium and created a scholarly momentum with added trainees and willing US-global faculty. Importantly, this model exchanges cognitive/tangible resources and ethical values from the global perspectives of diversity and cross-cultural awareness, critical to patient care and research.

P25

Assessing the Effects of Pre-Dental Coursework in Dental School Curriculum

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Educational Entity: UTHealth School of Dentistry

We assessed the influence of demographic factors such as educational background and pre-dental coursework on the academic performance in DS1 Biomedical Science Core course. Whereas students' performance in the course pertinent biomedical science questions significantly improved, the pre-dental coursework did not influence students' performance after teaching this course.

Rationale

Admissions criteria in professional schools encourage an applicant pool with a broad educational background. While a number of studies have correlated dental admissions criteria (e.g. DAT scores, College Science GPA) with dental school performance, there is minimal literature on the relationship between pre-dental course work and academic performance in basic science courses at dental schools. The Biomedical Science Core course is an interdisciplinary DS1 course that integrates anatomy, physiology, cell biology, molecular biology and biochemistry in a systems based approach. The objective of this study was to examine if pertinent pre-dental coursework influenced dental students' performance in the Biomedical Science Core course.

Hypothesis

We hypothesize that pertinent pre-dental coursework will improve students' performance in the Biomedical Science Core course.

Methods

We surveyed DS1 students for demographic factors such as undergraduate coursework and major along with course pertinent questionnaire. In the questionnaire, we used biochemistry, cell biology and molecular biology based questions and assessed for relationships between pre-dental coursework and students' performance before and after teaching the course in Fall-2018.

Results

Dental students' scores in the post-course questionnaire significantly exceeded the pre-course scores by 17% ($p < 0.00001$). Students with undergraduate coursework in cell biology did significantly better only in the pre-course questionnaire ($P = 0.05$) but not in post-course questionnaire ($P = 0.18$). Undergraduate coursework in molecular biology and biochemistry had no influence on students' scores in either pre or post-course questionnaire.

Conclusion

Undergraduate coursework in specific courses related to biological sciences had no influence on dental students' scores in course pertinent questions after teaching the Biomedical Science Core course. We conclude that this course serves as a leveling course for incoming dental students coming from a diverse educational background. Ongoing studies include extending this study to Fall-2019 and another DS1 basic science course at The University of Texas School of Dentistry at Houston.

P26

The Elephant in the Room: EBM Teaching in Clinical Clerkships

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Educational Entity: Texas A&M University; Ohio Health & Science University; Pennsylvania State University College of Medicine

Is pre-clerkship EBM instruction reinforced in clinical clerkships? In this qualitative study, the investigator shadowed faculty, residents, and students on patient rounds and other activities at a large teaching hospital to observe instances of EBM teaching. EBM teaching was sporadically modelled in clerkships, indicating potential shortfalls for students' EBM competencies.

Background

In 2014, the American Association of Medical Colleges issued 13 sets of clinical competencies-Entrustable Professional Activities (EPAs)-that medical school graduates should possess upon entering residency. EPA7 defines competencies for Evidence-Based Medicine (EBM), which are typically taught in the pre-clerkship curricula and are assumed to be reinforced in clerkship training. However, little is known about how—or whether—EBM instruction is carried through to students' practice-focused learning in the clinical years.

Objective

This qualitative study investigated the extent to which EBM teaching is incorporated into clinical clerkships.

Methods

The investigator shadowed clerkship faculty, residents, and students on patient rounds and in didactic trainings at a large teaching hospital—one of 10 pilot sites for testing EPA implementation—in Fall 2019 to capture instances of EBM teaching and practice. These instances were recorded on a field guide, comprised of EPA7 functions, competencies, and behaviors. Aggregated observations were categorized by EPA7 competency levels, and exemplars identified to highlight how observations corresponded to or conflicted with expected instruction.

Results

Observations of EBM teaching were recorded in various activities in several clerkships. While many instances of referral to relevant literature occurred, only a few mentions of clinical questions (PICO) and/or of assessing the validity and application of research evidence to patients were noted. One instance of assessment of students' competencies by an attending was recorded. Data collection concluded in November 2019; final data analysis and detailed results will be reported at the meeting.

Conclusions

While elements of EBM were observed in clerkship activities, modeling of EPA7 behaviors by clinical faculty and assessment of students' skill levels was inconsistent and largely absent. Therefore, medical students may not be prepared to search and critically appraise the research literature for clinical questions. Further research is needed to evaluate EPA7 curriculum development and assessment in clerkships.

P27**PEERS: Mentored Project-based Community Health Education for Teens**

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Educational Entity: University of Houston

Project Engagement Encouraging Rising Students (PEERS) uses project-based learning and undergraduate mentorship to embody a partnership between community members, community health workers, and the University of Houston. The PEERS curriculum promotes community engagement by training its participants in developing community projects that advocate for improved health outcomes in their communities.

Project Engagement Encouraging Rising Students (PEERS), supported by the University of Houston College of Medicine and the Hewlett Packard Enterprise Data Science Institute, is a Houston-based community health initiative that focuses on encouraging STEM education and providing mentorship to underserved students in grades 9-12. The program curriculum uses project-based learning to promote community engagement and develop the 21st century skills essential for success in STEM careers. PEERS grew from and embodies the model of Community Health Workers (CHWs) as simultaneous educators and advocates. Initially conceived in a CHW class, this program pairs community members and University of Houston undergraduates to create long-lasting, effective, and engaging community projects that are meaningful and relevant to students and members of the community. PEERS uses continuous feedback loops, enabling project managers and CHWs to construct a curriculum and facilitate lessons in five different high schools. Each student team presents their final project at the PEERS competition which occurs at the end of the school year in conjunction with the Trust In Health CHW Conference at the University of Houston. Their project submissions allow the CHWs to provide in-person feedback. This presentation involves a discussion of the results from two years of the program and elaborates on the education strategies used in the PEERS curriculum by having audience members role-play as lesson plan facilitators. Facilitating community engagement through collaboration and project-based learning encourages both our undergraduate and high school participants to pursue academic and professional development to advocate for improved health outcomes in their communities.

P28

Uses and Effects of Common Ayurvedic Agents: A Global Health Education Perspective

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Educational Entity: McGovern Medical School at UTHealth

Ayurveda, and other alternative medicine systems, are becoming increasingly popular in the West. However, there is limited data on the effects of these therapies. This project focuses on three patient cases and the profiles of six common Ayurvedic agents used by these patients.

Background

Ayurveda is an ancient medical system still in use as part of the overall healthcare system in parts of South Asia. It uses a holistic mind/body approach with health care treatment plans tailored to the individual patient. Use of plants has been an integral part of the system of Ayurveda since ancient times. However, the clinical indications and safety profile of these agents are still relatively unknown.

Objective

To study uses, mechanisms of action, and known side effects of commonly used ayurvedic agents.

Methods

Case review and literature review of chemical properties of selected Ayurvedic agents using pubmed and Google Scholar.

Results

Three cases were reviewed where patients were prescribed ayurvedic remedies which resulted in adverse outcomes. Selected agents were studied in-depth: curcumin longa (turmeric), zingiber officinale (ginger), apium gravelens (celery), pimpinella anisum (aniseed), vitex negundo (nika), and tinospora cordifolia (rasakinda). These plants contained compounds that were biologically active as anti-inflammatory, anti-microbial, anti-oxidant, anti-diabetic, anti-convulsant, and analgesic agents. However, these agents also had dangerous side effects and drug interactions which resulted in increased INR (turmeric and ginger), anaphylactic shock (celery and aniseed), or chronic kidney disease (nika and rasakinda). Data on side effect profiles for these agents were limited. However, possible causes of these reactions were due to various reactions such as epigenetic changes (turmeric and ginger), cross-reactivity with common allergens (celery and aniseed), and/or dopaminergic potentiation (rasakinda).

Conclusion

While alternative therapies are becoming increasingly popular, there is still limited data on their effects (both beneficial and detrimental). While these agents may be therapeutically effective, they may also have dangerous side effects and conflicting drug interactions with allopathic medicines that are relatively unknown.

P29

Influences of Personality and Career Priorities on Specialty Choice: Data from two Texas Physician Networks

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Educational Entity: UT Southwestern

As part of a larger study to understand influencers of medical student specialty choice, we characterized the personalities and career priorities of existing physicians based on their chosen medical specialties.

Background

Specialty interest assessments provide efficient career guidance to medical students. Current specialty matching tools quantify students' enjoyment completing specialty-specific tasks. However, the importance of multifaceted influences on specialty choice grows.

Objectives

We aimed to quantify differences in personality traits and career priorities of physicians in primary care (PC) versus non-primary care (NPC) and lifestyle-friendly (LF) versus non-lifestyle-friendly (NLF) specialties.

Methods

We disseminated a survey to physicians in two, Texas-focused physician networks to measure demographic information, personality traits and career priorities. Ten-Item Personality Inventory (TIPI) evaluation of extraversion, agreeableness, openness, conscientiousness and emotional stability allowed scores 1 to 7. Participants allocated 100 total points between passion, salary, free time, prestige and personality match with more points associated with increased importance. We compared the personality traits and career priorities of PC versus NPC physicians and physicians in LF versus NLF specialties using t-tests.

Results

We received 832 completed physician surveys: 35% women, most common age 35-44 years old. Average scores for extraversion, agreeableness, openness, conscientiousness and emotional stability were 4.2, 5.4, 5.1, 6.2 and 5.6, respectively. Average points allocated to passion, salary, free time, prestige and personality match were 33, 20, 25, 10 and 11, respectively. PC physicians showed statistically significant differences: increased agreeableness and personality match importance, decreased conscientiousness and salary importance. LF physicians showed statistically significant differences: increased extraversion, conscientiousness and emotional stability, increased importance of salary and free time, decreased importance of passion, prestige and personality match.

Conclusions

Our results indicate that personality traits and career priorities are significant predictors of choosing PC and LF specialties. Expanding medical student advising to discuss more holistic influences on specialty choice may improve quality of career recommendations. Attracting students who are more agreeable and less conscientious may increase yield of primary care physicians.

P30

Asking About Addiction: Educating Health Professions Students on Motivational Interviewing for Substance Use Disorders

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Educational Entity: Baylor College of Medicine; Emory University School of Medicine

Motivational interviewing is an evidence-based patient communication method that has found success in assisting patients in making various behavioral changes, including reducing substance use. We held an hourlong workshop for health professions students to provide training not found in the general curriculum and measured improvements in learners' confidence and knowledge.

Objectives

Our objectives were to improve health professions students' competence in using MI with their patients and increase their ability to share MI knowledge and skills with colleagues.

Methods

We designed a one-hour, two-phase workshop to teach 14 medical and physician assistant students about MI. In the didactic phase, an addiction medicine physician and two medical students taught participants about major principles and skills in MI. In the application phase, participants completed a worksheet in groups applying MI concepts in both written and simulated clinical scenarios. We evaluated the efficacy of our workshop using pre- and post-surveys, collecting both quantitative (Likert Scale of 1-5, multiple choice answers) and qualitative (free response comments) data. We analyzed Likert scores using a non-parametric Wilcoxon signed-rank test and knowledge quiz responses using a McNemar test for correlated proportions. Because we would expect an educational intervention to demonstrate either a positive or no improvement, p-values were calculated using a one-tailed test.

Results

Our sample included 14 pairs of completed pre- and post-surveys from 10 medical students and 4 physician assistant students. In confidence in counseling ability, students reported an average increase of 1.29 Likert points ($p < 0.005$); this improvement was more pronounced (1.29 points) when students were specifically asked about their confidence using MI with patients with substance use disorders. In comfort in teaching MI skills to peers, students reported an average increase of 1.79 Likert points ($p < 0.005$).

Conclusions

Our results demonstrated that our workshop was successful in increasing health professions students' confidence, comfort, and knowledge regarding MI concepts and illuminated reasons why they may be interested in MI training.

P31

Effect of Implicit Bias on Pediatric Weight Management

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Educational Entity: McGovern Medical School at UTHealth

Pervasive weight bias among physicians contributes to negative patient perceptions. Though clinical weight management proficiency is largely lacking, treatment decisions by pediatric residents may not be influenced by implicit weight bias. This study highlights deficits in clinical weight management decisions and indicates a need for further research into their sources.

Background

Pervasive among physicians, weight bias contributes to negative perceptions of obese patients. While most pediatric residents are not confident in managing pediatric weight, it remains to be seen how weight bias influences treatment in pediatric patients. Studies directly measuring clinical weight management proficiency are limited.

Objective

This study evaluated the effect of physician weight bias on pediatric clinical weight management and identified trends in clinical management decisions.

Methods

We retrospectively analyzed OSCE data from 36 pediatric interns at McGovern Medical School as they managed a standardized overweight pediatric patient. Available weight IAT results for 13 of these residents were compared to evaluate the effect on management decisions, and all residents were analyzed to identify clinical management trends.

Results

Overall, the 36 resident scores (number of positively rated items out of 19) averaged 11.17 (2.31). Nine out of 13 residents demonstrated weight bias. A two-tailed t-test showed no significant difference between biased and unbiased residents ($p=0.86$). All 36 residents asked open-ended questions, demonstrated respect, and avoided bias against the parent. Most increased motivation and avoided both bias against the child and biased terminology (97%), advised about bullying (94%), provided diet/exercise recommendations (89%), and asked about the child's food/drink preferences (67%). Some inquired about past weight loss efforts (47%), collected a family history of diabetes/hypertension (42%/36%, respectively), and asked what drinks/foods the child could limit (44%/33%, respectively). 25% asked about the grandmother's influence on snacking, 19% requested lab work, and few inquired about a family history of hypercholesterolemia, grocery shopping, or snoring (11%, 11%, and 6%, respectively).

Conclusions

These results indicate that implicit weight bias may not affect the clinical management of overweight pediatric patients, and that patients may not detect any explicit physician weight bias. However, there are clear opportunities for residents to improve their clinical weight management skills.

P32

The Use of Video–Assisted Surgical Feedback for Residents in Obstetrics & Gynecology

Megan C. Shepherd, MD, Gayle Olson, MD, George R. Saade, MD, Sangeeta Jain, MD

Educational Entity: The University of Texas Medical Branch at Galveston

Our study was aimed to find if video-assisted operative feedback was useful in OB/GYN residency training. Our residents found video feedback to be useful, could identify strengths better, could identify their weaknesses and compared to other forms of feedback, found this to be more useful.

Background

Since the introduction of 80-hour workweek restriction, many studies have documented a reduction in the quality of the operating experience for residents. Surgical simulation has improved technical skills; however, the data regarding transferability of simulation skills to the operating room is conflicting. Quality feedback is necessary for the trainee, thus it is important to gauge perceptions of feedback in a residency programs. Recently, a study utilizing video-assisted feedback to surgery residents was studied along with the written operative evaluation tool. Resident survey showed 90% found the video useful for assessing key technical aspects of the surgery & wanted to review video with the attending surgeon for further feedback.

Hypothesis

We hypothesize that the Ob/GYN residents will find video-assisted operative feedback to be useful in their residency training. Additionally, the use of GoPro as a platform for recording of basic surgical procedures will be feasible and a novel effective way to provide operative feedback.

Methods

IRB approval was obtained. The patient was asked for informed consent to allow recording of surgery for educational purpose alone. The first and second year ObGyn residents performing cesarean section were recorded and faculty review performed within 24 hr of the surgery. Following this, the resident survey was completed online and was anonymous. Using the 5-point Likert scale, the Ob/Gyn residents completed survey on their perception of video-assisted feedback; whether they found the review useful, were they able to identify their strengths and weaknesses by this method and compared to other forms of feedback, how would they rate this feedback.

Results

UTMB takes 8 residents per year and thus far, 16 residents were eligible to participate in the study. 12 surgeries have been recorded so far. Of the 12 surveys, 75% found video feedback to be useful, 83.3% could identify their strengths better, 74.9% could identify their weaknesses and compared to other forms of feedback, 83.2% found this to be more useful.

Conclusion

It is important for residents to reflect on their performance, recognize potential mistakes and learn proper surgical technique. GoPro video feedback offers an opportunity to provide high quality surgical video review as a dynamic tool for resident education.

P33

Student Perspective on Readiness to Engage in the Entrustable Professional Activities Provides Important Curricular Feedback

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Educational Entity: The University of Texas Medical Branch at Galveston; University of Arizona College of Medicine

The Core Entrustable Professional Activities for Entering Residency provide a national recommendation for thirteen clinical skills that medical students should be able to perform at the time they begin residency. We studied our students' perceived readiness to perform these skills, and have used the information to modify our curriculum.

Background

The Core Entrustable Professional Activities for Entering Residency (EPAs), represent thirteen clinical skills which all medical students should be able to perform without direct supervision at the beginning of residency training.

Goals

We questioned how prepared our medical students felt to perform each of the EPAs, both prior to and after completing core clinical clerkships.

Methods

Two classes of medical students (class of 2020 and 2021) completed a questionnaire prior to starting core clinical clerkships focused on "readiness to perform" each of the EPAs. Responses were categorized by perceived level of supervision needed. In 2019, the senior medical students [class of 2020] were again asked to reflect on their perceived readiness to perform the EPAs. Descriptive statistics were used in analysis. Comparisons for the two groups prior to starting clerkships, and for pre- and post-clerkship responses were performed.

Results

The majority of students (~200/group) completed each questionnaire. Highly rated for perceived readiness (for both pre-clerkship groups) were EPA#1-gather a history and perform a physical examination, EPA#2-Prioritize a differential diagnosis following a clinical encounter and EPA#7-Form a clinical question and retrieve evidence to advance patient care. Lowest rated were EPA#8-give or receive a patient handover to transition care responsibility and EPA#12-Perform general procedures of the physician. All thirteen EPAs showed gains in perceived readiness between the pre- and post-clerkship period, with the greatest change for EPA#8.

Discussion

The transition from undergraduate to graduate medical education is complex. Ensuring that students been exposed to and assessed on the EPAs, and that they feel ready to engage in these core clinical activities is essential. Student feedback on perceived readiness to perform the EPAs has provided valuable information for curricular enhancements in our pre-clerkship and clerkship curricula. We also recognize the need for faculty development to enhance deliberate observation of student skills mapped to the EPAs.

P34

Evaluating Medical Students Rotating in Radiology- Can we do this objectively and effectively?

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Educational Entity: McGovern Medical School at UTHealth

A novel approach to evaluating medical students who rotate through the radiology department with a clear objective outline and complete transparency. The course addresses concerns from both faculty and students by defining educational objectives and expectations. This design helps foster an environment of collaboration, engagement, and excitement for students involved.

Background

Students who rotate through radiology electives as a part of their curriculum have varying degrees of experience, depending on the education environment, faculty engagement and student commitment levels. Grading and evaluating students during these radiology rotations have been difficult, due to the subjective nature of these electives.

Goal

Our objective was to create a course that was informative, engaging and consistent to all students that chose this radiology elective. Our secondary goal was to ensure students and faculty had clear expectations of the rotation.

Method

The course consisted of online-learning, clinical rotation, lecture sessions, and a final case presentation. All aspects of the course have an associated weightage, ensuring students have an ample opportunity to not only pass the course but get an honor grade. The weighted average grading system has clear guidelines and expectations which include objective measurements of the completion of tasks, logs of the attendance and a thorough evaluation of the final case presentation.

Results

The course has addressed most of our considerations while maintaining a high level of satisfaction from students and faculty. The grade distribution and scores were in-line with our expectations.

Conclusion

The radiology course allows students to align their elective experience with their own career path, which increases engagement and retention. Students had autonomy over their subject matter, but also were successfully evaluated on the application of learned concepts.

P35

Resilience and Perceived Experiences of African American Health Care Professionals' Interaction with Organizational Support Offices

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Educational Entity: The University of Texas Medical Branch at Galveston; University of Houston Clear Lake

Universities face challenges of recruiting, retaining, and graduating African Americans (AA) for health care profession programs (Moore, 2006). This study explored AA participants' experiences from health care training programs. Demonstrating the importance of support networks, the results created ways university administrators can better recruit and retain AA health care students.

Background

African Americans (AAs) comprise 13% of the U.S. population only 4% are physicians and surgeons, which is why the population is considered an underrepresented minority in the field of medicine (Rosenthal, 2015). According to the Association of American Medical Colleges (AAMC, 2018), in the past 37 years, medical schools experienced an increase in more diverse applicants, excluding AAs. Colleges and universities try to rectify this disparity by offering organizational support to AAs through the Offices of Student Affairs and Admissions (Bolman & Deal, 2017). For this study, organizational support is defined as the supports the participants experienced at universities where they received training.

Hypothesis

This study examined the relationship of resilience levels of AA health care professionals' and their perceived experiences of organizational support for training in health care programs. It was hypothesized that results would display a difference between AA resilience and the perceived experiences of organizational support, a difference between AA males' and females' levels of resilience, and a difference between AA males' and females' perceived experience of organizational support.

Methods

An explanatory sequential mixed method design was used for this study. Participants completed the Connor-Davidson Resilience Scale (CD-RISC) to measure the resiliency of AA health care professionals enrolled in health care training programs. The Survey of Perceived Organizational Support (SPOS) measured perceived experiences of organizational support. The population consisted of AA males and females currently working in health care. Participants reflected to their resiliency experiences when they were enrolled in health care programs.

Results

There was no significant relationship between perceived institutional supports and resiliency. The levels of resilience were same for both genders.

Conclusions

Retention and graduation of AA students for health care programs is a pressing concern for higher education institutions (Laird, Bridges, Morelon-Quainoo, Williams, & Holmes, 2007) because patients seek medical care from professionals who look like them. Without AA health professionals, AAs will receive less-than exceptional healthcare (Collins, 2015). Research should focus on university programs designed to increase AA recruitment and retention for health training programs.

P36

First in the Family: Bridging the Gap for First Generation Medical Students

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Educational Entity: The University of Texas Medical Branch at Galveston

First in the Family (FiF) is a UTMB Student Organization that was created to build a community where experiences, resources, and information are shared to make the transition into medical school easier and create a support system for first-generation students.

1. First in the Family was created after realizing there were no organizations on UTMBs campus with the specific goal of helping first-generation medical school students transition and thrive while in medical school. Many of these students come from disadvantage or minority backgrounds, making the transition that much harder as many do not understand the trials they face.
2. Our goal is to increase retention and provide resources to first-generation medical students by creating a community where experiences, resources, and information are shared.
3. FiF functions in this capacity by hosting first-generation physician panels, social networking events, and guest speakers over relevant topics, such as mentorship, research, finances, and balance between social and professional lives. We, in cooperation with the Academic Services and Career Counseling, facilitate establishing mentors for our members, as well as working with the UTMB Diversity in Medical Education Council to create opportunities for prospective and underrepresented minority students to visualize their success in medical school.
4. We have seen an increase in collegiality amongst our organization where more of our members are holding positions of leadership and are thriving both academically and socially. Additionally, we are seeing an increase of first-generation medical professional faculty participation in our organization as they are wanting to give back to those that are just starting. Lastly, we have accrued a significant amount of interest in our organization, growing from just six members to over 100 in just under a year. With the overwhelming acceptance by faculty, we will begin FiF Faculty panel discussions for our members.
5. As we continue, we plan to incorporate the incoming first year class early on to help ease the transition. Future plans include a mentorship program pairing first year members with upperclassmen, including first year students in FiF leadership positions, and coordinating with other underrepresented minority groups on campus.

P37

Using Expressive Creative Arts to Educate Students in Women's Health Concepts

Wiggs, Carol, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

Women's Health has multiple complex concepts. In an introductory course on women's health students used creative expressive arts to explore the lived experiences of women as they daily encountered a multitude of issues. Students expressed their concepts via multiple venues. Student evaluations expressed their understanding of the issues.

Women's Health, like many other specialties, has multiple complex concepts. In an introductory course on women's health including the birth cycle students were exposed to creative expressive arts to explore the lived experiences of women as they experienced the multitude of issues they faced daily. Students explored a multitude of lived experiences from adolescence, through young adulthood, pregnancy, middle adulthood and older age. Students expressed their concepts via multiple venues including sculpture, video, painting, poetry, and visual movement. Student evaluations expressed a deeper understanding of the issues they explored.

P38

Evaluating Effectiveness of Quality Improvement and Patient Safety Skills Workshops for Medical Students

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Educational Entity: Baylor College of Medicine

While the AAMC encourages inclusion of quality improvement and patient safety (QIPS) in medical education, many students receive limited exposure. To rectify this, we led four workshops for medical students on techniques like process mapping and root cause analysis and found measurable improvements in learners' knowledge and confidence regarding QIPS.

EDUCATIONAL OBJECTIVE

Participants should be able to understand the utility of quality improvement and patient safety skills workshops in augmenting medical student education.

Background

While the AAMC encourages medical schools to incorporate quality improvement and patient safety (QI/PS) training, medical students continue to have limited QI/PS exposure.

Goal/Hypothesis

To prepare medical students for careers that involve QI/PS, the Institute for Healthcare Improvement (IHI) chapter at Baylor College of Medicine offered workshops to equip learners with skills to improve the quality and safety of healthcare processes.

Methods

Workshops were hosted for students on four QI/PS topics between 2015-2018: Process Mapping, Root-Cause Analysis (RCA), Plan-Do-Study-Act (PDSA) Cycles, and Handoffs. Each workshop included a hands-on component to engage learners in practically applying QI/PS skills. Change in knowledge, attitudes, and behaviors was assessed via pre- and post-surveys, and analyzed using the non-parametric Wilcoxon signed-rank test.

Results

212 student learners attended the workshops. 88% completed the surveys and 12.5% previously received formal instruction in QI/PS. Improvement in confidence was observed through mean pre/post differences using a 5-point Likert scale and analyzed for Process Mapping (2.25, $p < 0.0001$, $n = 48$), Handoffs (2.08, $p < 0.0001$, $n = 86$), Root-Cause Analysis (1.65, $p < 0.0001$, $n = 31$), and Plan Do-Study-Act Cycles (2.16, $p < 0.0001$, $n = 31$). Data showed that students felt comfortable teaching the learned QI/PS skill to colleagues (mean difference 2.11, p -value < 0.0001 , $n = 170$) and were more likely to pursue QI/PS projects in their careers after attending the workshops (mean difference 0.56, p -value 0.0002, $n = 50$).

Conclusions

Few medical students have formal instruction in QI/PS. Our results show that student-led workshops are useful to teach QI/PS to medical students, and these workshops significantly improve learners' confidence and knowledge in performing QI/PS skills throughout their training.

P39

Firearm Safety Education in the Medical School Curriculum

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Educational Entity: McGovern Medical School at UTHealth

Despite firearm injury presenting as a public health threat in the U.S., only two medical schools in the nation currently offer educational programs on gun violence. The McGovern Medical School “Gun Violence & Physicians” curriculum can serve as a framework in the development of similar programs at other schools.

Background

Firearm injury is a public health threat, with over 40,000 deaths and 85,000 injuries annually. Although physicians must be informed on the health consequences of societal issues, few schools in the nation address firearm injury. Therefore, it is imperative to include firearm safety education in the medical school curricula.

Goal

The elective lecture series on gun violence prevention by McGovern Medical School can serve as a framework in the development of similar programs at other schools.

Methods

Literature search and expert consults in the field were conducted. Core themes were selected to create 7 one-hour lectures on gun violence related topics including: Anatomy and physiology of a bullet wound, mental health stigma, gun violence assessment, speaking to patients about guns, empathy and trauma, public health consequences, and role-playing workshops. Participants took post-course surveys composed of Likert scale and open-ended responses.

Results

218 students attended the lecture series. 85.8% of participants agree or strongly agree that the course enhanced their understanding of mental health and gun violence. 89.1% of participants agree or strongly agree that the course improved their awareness and knowledge of firearm safety. 85.8% agree or strongly agree that the course enhanced their ability to talk about firearm safety with their peers and patients. 87.0% of participants wished to see the course integrated into their core curriculum. Selected quotes from the open-ended responses include: “I really enjoyed the diversity of topics presented.”, “I liked the lecture about how to discuss firearms in the home with your patients. It allowed me to get some skills to use in clinic and how I can make a direct impact on my patient population.”

Conclusion

Firearm safety is a public health issue that should be addressed within medical education. A lecture series on a variety of firearm injury topics was effective and well received with medical students.

ORAL PRESENTATION ABSTRACTS

OP1

Increasing Faculty Competency in Debriefing and Delivering Effective Feedback

Alton, Suzanne, DNP, APRN, FNP; Szauter, Karen, M.D.; Nguyen, Hoang, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

The purpose of this project was to improve the quality and effectiveness of faculty feedback in debriefing high-stakes simulation exams. Pre- and post-intervention self-efficacy in debriefing and evaluation of faculty performance showed improvement after an online educational module was completed and the grading form was revised to provide specific feedback.

Rationale

Simulation is an evidence-based teaching strategy that has a powerful impact on student learning. A key component to ensure the student learns the objectives of the simulation is by debriefing after the activity. Debriefing is defined as structured feedback. The International Nursing Association for Clinical Simulation and Learning (INACSL, 2016) publishes simulation standards to encourage best practices. INACSL recommends receiving training and using a debriefing framework. The aim of this research project was to increase faculty's competence in debriefing through a 3-hour online training module and minor curricular changes. The online training consisted of two modules: 1) how to give effective feedback, and 2) best practices of debriefing.

Project Description

The setting for this project was a Family Nurse Practitioner (FNP) program at an Academic Health Center in the US. High-stakes clinical simulation assessment are required to pass each course, and the faculty have an opportunity to debrief the student at the end of the simulated appointment. The FNP team chose the debriefing framework "Healthcare Simulation After Action Review" to structure their student evaluations. Additionally, the team modified the simulation grading forms for faculty to write in the next best step for the student to improve performance.

Trained research assistants evaluated and scored recordings of faculty debriefing behaviors using the Debriefing Assessment for Simulation in Healthcare (DASH) instrument. One hundred recordings were reviewed before the interventions were implemented, and then compared to 100 recorded sessions after the interventions.

Results and Discussion

Faculty self-efficacy in debriefing did improve to a statistically significant level after the above interventions. Faculty's debriefing performance also showed improvement in all elements of the DASH, and all but one were statistically significant. The training module is available to interprofessional faculty at UTMB and other programs.

OP2

An Interdisciplinary Approach to Improving Access to Dental Care for Adults with Intellectual/Developmental Disabilities

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Educational Entity: Baylor College of Medicine; University of Houston at Clear Lake; University of Houston School of Dentistry

In order to address oral health disparities seen in adults with intellectual/developmental disabilities, a multidisciplinary program was developed to improve cooperation with routine dental procedures using a variety of behavioral techniques. Based on program experiences, education products were created to address relevant knowledge gaps for healthcare professionals and trainees.

Rationale

Adults with intellectual/developmental disabilities (AIDD) experience poorer oral health compared to the general population. Contributing factors include behavioral concerns that make it more difficult to cooperate with routine dental care and a general lack of healthcare professionals trained on how to care for AIDD.

Project Description

Utilizing input from medical, dental, behavior analyst, and self-advocate stakeholders, a multidisciplinary, multi-institutional program was developed through funding from the WITH Foundation and Texas Council for Developmental Disabilities. The program applied a variety of behavioral techniques to help AIDD participate in routine dental care without the need for sedation, general anesthesia, or restraint. Gaps in healthcare training/education for AIDD were addressed by: 1) assembling the experiences of the program and the collective knowledge of the multidisciplinary team into a curriculum, 2) hosting an interdisciplinary educational conference with local professionals and trainees, and 3) inviting local professionals and trainees to directly observe program activities.

Results and Discussion

Of the 37 AIDD enrolled in the program, 5 participants have withdrawn, 16 are currently enrolled, and 16 have successfully received a preventative dental exam no longer needing sedation, general anesthesia, or restraint. Approximately 40 professionals and trainees of various disciplines attended an educational conference. Of 26 post-conference survey responses, all rated the overall quality of the conference as “excellent” (61.5%) or “good” (38.5%). Attendees’ self-reported rating of their comfort level caring for AIDD significantly increased (pre-conference mean 4.0, post-conference mean 4.7 [1 = very uncomfortable, 5 = very comfortable]; $p = 0.008$).

Preliminary data suggests an interdisciplinary behavioral approach to dental care may be highly effective for AIDD. Creation and evaluation of educational products, such as the conference or ongoing curriculum development, is essential to disseminate this knowledge and train health care professionals to be able to impact this crucial health care disparity.

OP3

The Challenges of Developing a Core Leadership Curriculum in an Inter-professional Academic Healthcare Center

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Educational Entity: UT MD Anderson Cancer Center

Inter-professional healthcare academic centers face challenges to identify a relevant core curriculum generalizable for all trainees. Here, we describe the process used to analyze requirements for a leadership core curriculum tailored to trainee needs. This research will be useful to educators developing a leadership curriculum for a multidisciplinary trainee population.

Leadership capacity is essential for trainee advancement. The opportunity to develop this skillset is an integral component of professional advancement. Leadership training in academic healthcare organizations has historically been limited to experiential learning rather than a defined educational program. National accreditation agencies are now recognizing the importance of leadership in graduate medical education and science training programs, expanding their requirements to ensure the need is met. At MD Anderson Cancer Center, the multidisciplinary trainee population includes researchers, physicians, and nurses, among others. The diversity of our learning community makes it challenging to identify a relevant core curriculum generalizable to all trainees. In this presentation, we describe the process used to analyze requirements for a leadership core curriculum tailored to trainee needs. We assembled a multidisciplinary, inter-professional expert panel representative of our trainee, educator, and administrator populations. Using Kern's Six-Steps and a modified Delphi approach for curriculum design, we systematically reviewed best practices and collected data through expert panel input and identified 33 core competencies to be considered for inclusion in the leadership curriculum. We invited educators, leaders, and trainees to evaluate each potential core competency for relevance and importance. Preliminary results informed a finalized list. Surveyed leaders consistently prioritized several competencies, including emotional intelligence. However, we observed major discrepancies in the ranking of core competency importance with respect to trainees vs. educators, discipline; and years of trainee experience. Survey data, unique needs of trainee groups, challenges of creating an inter-professional core curriculum, and implications of an adequate needs assessment for curriculum development are presented. We propose that careful identification of learner and program needs are essential first steps in the development of an inter-professional leadership curriculum meaningful to all stakeholders. This research will be useful to educators seeking to establish a leadership curriculum for a diverse, multidisciplinary group of learners.

OP4

Fostering the Professional Identity of Residents Committed to a Dual Career as a Physician-Scientist: Early Outcomes of the Pediatrician-Scientist Program

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Educational Entity: Baylor College of Medicine; Columbia University

In an effort to strengthen the professional identity for residents interested in a career as a pediatrician-scientist, Baylor College of Medicine implemented a career track. As the program has completed its fifth year, short-term goals have been achieved of increasing matriculation and scholarly output of residents within the residency program.

Rationale

The training pipeline for physician-scientists begins in medical school, transitions to residency and fellowship training, and finally to junior faculty. The pipeline for the physician-scientist workforce is endangered by inadequate recruitment, limited funding, and attrition. In an effort to strengthen the physician-scientist career, Baylor College of Medicine (BCM) and Texas Children's Hospital (TCH) implemented the Pediatrician-Scientist Program (PSP). The PSP strives to cultivate the development of pediatrician-scientists through grounding immersion in both clinical and scientific practice environments through a unique parallel curriculum. We report early outcomes since implementation in 2014.

Project Description

To carry forth the mission, a conceptual framework of Pediatrician-Scientist Professional Identity Formation and a novel curriculum were implemented. Upon matriculating into the BCM PSTDP, residents begin transforming from a novice medical student to an expert pediatrician-scientist. Such transformation entails continuously creating and refining "provisional selves" through interdisciplinary programmatic experiences. The PSP offers a year-specific curriculum which includes clinical case report writing (year 1), a pilot grants program (year 2) and pediatrician-scientist identity formation reflection (year 3) through narrative writing.

Results & Discussion

As the program is now midway through the third year, short-term goals have been achieved of increasing matriculation of MD/ Ph.D. residents that apply and matriculate into the BCM residency by four-fold along with 75% of the first PSP class matching into TCH for subspecialty training and tenfold increase in scholarly output.

The BCM PSP has successfully matriculated six MD/PhD residents that have generated twenty publications during residency and have significantly increased recruitment of residents committed to a career of physician-scientists. The program serves as an early training model for cultivating pediatrician-scientist development in the framework of professional identity formation.

OP5

Integrating Wellness into the First Year Curriculum

Calvert, Barbara, Ph.D.; Schatte, M.D.

Educational Entity: The University of Texas Medical Branch at Galveston

This presentation will discuss integrating wellness education into the first year curriculum. This presentation will overview how wellness has been incorporated into the UTMB new first year course Mindfully Evolving Thinking and Advocating and the year. The impact of incorporating wellness into the curriculum will also be discussed.

Rationale

Over the past several years mental health issues have been increasing on college campuses. Health Science students tend to seek treatment at lower rates because of fears about the impact seeking help will have on their license as well as stigma associated having with mental health concerns. We aimed to help reduce the stigma associated with seeking mental health treatment and increase the number of students who seek mental health treatment. In addition, we aimed to ensure that all medical students received wellness education.

Project Description

Several different strategies were implemented. First, we continued to have the Texas Medical Board present to all first year students about the impact of seeking mental health treatment. We hope to dispel myths and provide accurate information. Second, we continued to have a presentation by a family who lost a son (medical student at the time) to suicide. Third, we developed a wellness curriculum for the new META course. This curriculum included a wellness and anxiety reduction didactic, QPR (Question Persuade Refer) training for all MS1 students, and a menu of wellness activities for students.

Results and Discussion

Student Health and Counseling saw an increase in the number of student presenting for services after the implementation of the wellness curriculum in the META course.

| | September | October | November | December |
|---------------|-----------|-----------|-----------|-----------|
| Psychotherapy | 2018 = 33 | 2018 = 26 | 2018 = 27 | 2018 = 19 |
| Patients | 2019 = 47 | 2019 = 57 | 2019 = 35 | 2019 = 40 |

Providers also report that students are coming in earlier for services instead of solely in a crisis situation.

OP6

Using the Assessment of Reasoning Tool to Facilitate Diagnostic Reasoning Feedback during a Case Discussion: A Mixed Methods Study

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Educational Entity: Baylor College of Medicine

The Assessment of Reasoning Tool (ART) was developed for workplace-based assessment of a learner's diagnostic reasoning skills. We describe how our study used an integrated mixed methods approach to evaluate the ART facilitating learning and guiding feedback about diagnostic reasoning in the clinical workplace.

Rationale

While the teaching and assessment of diagnostic reasoning skills are critical in medical education, diverse physician approaches to reasoning and scant reliable assessment and feedback methods make it challenging. Designed to standardize this process, the Assessment of Reasoning Tool (ART) provides a clear structure, specific behavior domains, and shared language for teachers and learners to discuss these skills. Our goal was to evaluate how the ART is used to facilitate learning and guide feedback among pediatric interns in the workplace.

Project Description

We used integrated mixed-methods research (IMMR) to contextually evaluate and understand how the ART facilitates the learning and feedback processes for pediatric interns in a hospital medicine rotation. Through literature review, expert input, and an iterative process, we developed a conceptual framework for the feedback interaction during a history and physical presentation. We used this framework to guide the design of a survey and semi-structured interview guide. The survey and interview guide were piloted prior to administration. The interns completed the 16-item, 5-point Likert scale survey to assess the characteristics and quality of feedback sessions guided by the ART. We used survey results to inform faculty interviews to gain insights into their use of the ART. We analyzed quantitative data with descriptive statistics and the transcribed interviews with a thematic analysis approach.

Results/Discussion

We received 52 survey responses from 38 interns, who characterized feedback sessions as favorable with respect to its content, structure, and ability to help set and achieve learning goals. They rated the feedback favorably compared to feedback received prior to the use of the ART. Preliminary analysis of faculty interviews revealed that the ART provided a framework that was practical and resonated with existing practices. Barriers to using the ART to guide feedback included limited time and inter-faculty variability.

OP7

From the Ground up: Experiences and Outcomes Implementing Active Learning Approaches into Graduate Student Science Education

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Educational Entity: Baylor College of Medicine

A new curriculum was developed with a goal to use active learning not didactic teaching. We report on development, implementation and outcomes of a teaching format that exclusively utilized student-based active and team learning to teach fundamental concepts and principals of immunology and microbiology to first-year graduate students.

Rationale

Team-based active learning would be highly effective in teaching first-year graduate students.

Project Description

16-week course met weekly for 2 hours. Fifteen students were assigned to four teams. Members rotated weekly as team leader.

Student learning from days -6 to -1 before weekly session

Day-6: Reading materials and learning objectives assigned. All teams read same background, but teams read different but related research papers.

Day-2: Students individually took graded quiz on key concepts from background.

Day-1: Teaching assistants facilitated student discussions at team meeting prior to the class session. These sessions accomplished three objectives: (i) enhance team's understanding of reading and objectives, (ii) aid development of "concept map" integrating background and research paper, and (iii) facilitate students identification of potential targets for therapeutic intervention.

Weekly sessions comprised five learning phases. Faculty facilitators assigned to each team aided team discussions and evaluated student participation and presentations.

Phase 1: Teams finalized concept maps on boards.

Phase 2: Each team leader used concept map for 5-min class presentation of research paper in context of background and rationalized potential target for therapeutic intervention.

Phase 3: Two paired teams integrated, developed and presented paired team concept map.

Phase 4: All four teams integrated, developed and presented overall concept map for the session.

Phase 5: Facilitators led class in discussions and questions that prompted participation by all students.

Take-home written midterm and final exams, which employed thought-provoking hypothetical questions, evaluated students individually for understanding key concepts.

Results and Discussion

- Anonymous evaluations completed by all students after each session were vital in revealing course strengths/weaknesses in real time and implementing rapid changes for improvement.
- Upon acclimation, students and faculty facilitators enjoyed new learning approaches.
- Based on exam outcomes, student participation at sessions and student evaluations, active and team learning were highly effective at teaching graduate students.

OP8

The Frequent Feedback Project: A Prospective, Randomized Assessment of Frequent Feedback Impact on Resident and Attending Perceptions of Performance.

Dupuis, Megan, M.D., Ph.D.; Swails, Jennifer, M.D.

Educational Entity: UT MD Anderson; McGovern Medical School at UTHealth

This project aimed to evaluate both attending and resident perceptions of feedback and resident performance by using a frequent feedback intervention, wherein half of the residents would receive standard feedback (typically midway and at the end of the rotation) compared to receiving q3 day feedback.

Rationale

On ACGME surveys, residents report that they do not receive enough feedback from attendings. We evaluated whether a frequent feedback (FF) model could be implemented on an inpatient rotation to improve resident perceptions of feedback and performance.

Hypothesis

Residents randomized to FF would perceive increased feedback and performance improvement compared to standard feedback (SF).

Methods

Six inpatient teams were randomized to either FF or SF. FF attendings were instructed to give feedback to at least one resident daily. SF attendings would give standard feedback, typically at the rotation midpoint and the end. Attendings and residents were surveyed before and after the rotation to assess attitudes about feedback and performance.

Results/Discussion

58 residents and 16 attendings have participated in the project. 41% of residents and 81% of attendings completed the pre-feedback survey. 46% of residents did not feel they receive enough feedback, and 91.6% wish they received more. In contrast, 84.6% of attendings report giving enough feedback. 41% of residents and 84.6% of attendings completed the post-feedback survey. Interestingly, only 75% of the residents on FF reported receiving FF, possibly because 40% only received 0-1 discrete feedback sessions. Interestingly, FF attendings reported giving minimum 2-3 sessions per individual, suggesting that feedback was less frequent than reported, or residents were not perceiving feedback episodes. Despite this, 50% of FF residents reported receiving adequate feedback, compared to 33%. 58% of FF residents reported changing habits based on feedback, compared to 33%. Interestingly, 80% of attendings reported performance improvements with SF compared to 33% with FF. Attendings noted challenges with FF, particularly time constraints.

Conclusion

Residents report receiving much less feedback than attendings report giving. With FF, residents report receiving more feedback and more performance improvement. Interestingly, attendings appear to favor standard feedback, suggesting that more work is needed to understand how to best deliver feedback to residents.

OP9

Global Health Morning Report: A Bridge between Two Worlds

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Educational Entity: Baylor College of Medicine; Rutgers University

A descriptive report of a novel educational tool to expose learners to global health concepts such as tropical disease epidemiology, uncommon diagnoses and treatments, logistical and ethical challenges associated with clinical practice in resource-limited settings.

Background

Global health (GH) is a growing area of interest among pediatric trainees and educators. There is increased recognition that all pediatric residents should receive training in core GH competencies. Morning reports offer a unique forum to integrate GH into pediatric training to longitudinally expose learners to unfamiliar diagnoses and treatments, and the logistical and clinical limitations associated with practicing medicine in a resource-limited setting.

Objective

We describe the format and content of a novel, structured global health morning report (GHMR) for pediatric trainees.

Instructional methods

Educators introduced the monthly GHMR into the pediatric residency curriculum in 2015. Residents are selected to present a case seen at either our home institution, an Indian Health Services location, or one of our affiliated sites in Romania or Sub-Saharan Africa. The diagnosis is unknown to the moderator, who is either a faculty member with global health experience, or a global health chief resident. The audience, comprised of pediatric residents, medical students, and faculty, drive the case discussion by asking questions to the presenter. For GHMR structure, see table 1. When pertinent, the moderator also facilitates a discussion on diagnostic and therapeutic approaches in the international and domestic setting.

Educational outcomes to date

Since its introduction, we have held approximately 52 monthly global health morning reports at our institution. Presented GH cases included uncommon presentations of common pediatric diagnoses, common and rare tropical illnesses, HIV and tuberculosis diagnostic challenges, oncological diagnostic and therapeutic challenges, and medication side effects (table 2).

Conclusions

GHMR offers the opportunity to incorporate tropical disease epidemiology, differences in diagnostic and therapeutic approaches in resource-rich and resource-limited settings, and diagnostic alternatives relying on physical exam and minimal laboratory and radiological tests into the pediatric curriculum. Further research is indicated to evaluate the effectiveness of GHMR.

OP10

Diagnostic Errors in Dentistry- A Review of Case Reports that Provides Insight in Teaching for Prevention

George, Mary, D.D.S.; White, Michele, D.D.S.; Nikdel, Cathy, D.D.S.

Educational Entity: UTHHealth School of Dentistry

Diagnostic Errors (DEs) occur as a result of a breakdown in the diagnostic process. Although the source of preventable harm, DEs are an understudied area in dentistry. The aim of this study was to gain a better understanding of DEs in dentistry. This would allow for identifying areas needing emphasis when teaching.

BACKGROUND

Diagnostic Errors (DEs) occur as a result of a breakdown in the diagnostic process. Although the source of preventable harm, DEs are an understudied area in dentistry. The aim of this study was to gain a better understanding of types and characteristics of DEs in dentistry, published in scientific literature.

METHODS

A retrospective review of published case reports describing DEs in dentistry was performed. Electronic bibliographic databases were searched. Data regarding the patient's age, gender, geographical location, type and characteristics of the DEs described was collected and analyzed.

RESULTS

Our search identified 516 eligible case reports. Leading type of DEs was delayed diagnosis (70%, n=361), followed by misdiagnosis (29.8%, n= 154) and missed diagnosis (0.02 %, n=1). Oral cancer made up the largest group of all delayed diagnosis (35%, n=128). Non-odontogenic lesions misdiagnosed as lesions of endodontic origin made up the largest group of all misdiagnosed DEs (24%, n=37). Patient gender distribution was 55% (n=283) female and 45% (n= 233) male.

Publications reporting delayed DEs were most prevalent in India (33%, n=120), followed by USA (11%, n=39) and Brazil (7%, n=25). Publications reporting misdiagnosis were most prevalent in India (7.5 % n=27), USA (5.2 %, n=19) and Brazil (5%, n=17). In all three countries, the age group most at risk were 30-40 years old.

CONCLUSIONS

Our findings provide a window into a variety of conditions that may present higher prevalence of DEs in dentistry. As these conditions have significant potential for harm, further research is warranted to 1) gain a better understating of their types and characteristics, 2) measure their true magnitude, 3) understand their contributors, 4) improve our understanding of diagnostic decision-making and 5) develop strategies to prevent recurrence/ reduce the number of DEs in dentistry.

This information could then be emphasized when teaching dental students to aid in prevention.

OP11

A Training Curriculum for Assessing Adult Capacity and Mistreatment

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Educational Entity: McGovern Medical School at UTHealth

This curriculum was designed to improve healthcare professionals' ability to assess adult capacity and mistreatment. The curriculum covers basic terminology, what UTHealth's Forensic Assessment Center Network does, technical aspects of completing in-person and telehealth capacity and mistreatment assessments, assessment techniques and evaluation tools, and collaboration with adult protective agencies.

Capacity can be defined as one's ability to have informed discussions of benefits, risks, and alternatives of self-care decisions with follow-through to complete those self-care actions. As the older adult population increases, many adults will become incapacitated due to neuropsychiatric events leaving them potentially unable to adequately care for themselves and placing them at risk for neglect, abuse, and exploitation. It is imperative that healthcare professionals who regularly interact with older adults be able to identify and diagnose incapacity, to intervene before harm happens.

Based on UTHealth's Texas Elder Abuse and Mistreatment Institute (TEAM) and Forensic Assessment Center Network (FACN) processes, with funding from the Consortium on Aging, we created a curriculum and certification program to educate healthcare professionals in adult capacity and mistreatment evaluation. Our goal is preventing harm, but at minimum identifying current harm so timely protective measures can be taken.

We will pilot this curriculum certification program with incoming 2020-2021 Geriatric Medicine fellows at UTHealth's McGovern Medical School. It will augment the current Adult Protective Services rotation completed by Geriatric Medicine fellows under the guidance of FACN physicians. Knowledge acquisition will be assessed pre- and post-rotation with knowledge-based questionnaires, to improve the education of healthcare professionals, and the content and quality of the curriculum itself.

We designed the curriculum content to be flexible. Initially created as a text-based product, it is suitable for adaptation to independent study presentations, or in-person or webinar lectures. It can be condensed into brief training pamphlets highlighting key points and strategies, or expanded into extended training seminars and certifications. Interactive skills workshops with other healthcare professionals or standardized patients is feasible to allow practice and mastery of new skills before interacting with genuinely vulnerable adults. We hope to share this curriculum with multidisciplinary healthcare professionals and other training programs in the future.

OP12

Teaching at Night - A Not-So-Impossible Challenge

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Educational Entity: Baylor College of Medicine

We created a novel intern night-float curriculum to enable formal teaching at night. Our novel curriculum consists of twelve case-based teaching scripts relevant to cross-cover scenarios. Interns typically spent less than 20 minutes on each topic and most often worked on the curriculum independently. Our qualitative feedback was overwhelmingly positive.

Across internal medicine residency programs nationally, formal education during intern night-float rotations (INFRs) is lacking. Formal instruction during night rotations is challenging for several reasons: such sessions are typically exclusive to daytime hours; fewer faculty members and senior residents are available at night; and night-float interns (NFIs) receive frequent cross-cover calls. We identified this gap as an opportunity for creation and implementation of a night-float curriculum for internal medicine residents.

Our novel INFR curriculum consists of twelve case-based teaching scripts relevant to cross-cover scenarios. Examples of topics include hypotension, shortness of breath, and altered mental status. Teaching scripts included a case-based scenario, visual schemas and algorithms related to diagnosis and management, and multiple-choice questions for self-assessment. The curriculum was provided to NFIs in printed and online formats. NFIs were encouraged to review one topic per night, which could be performed independently, with an on-call senior resident, and/or with a nighttime attending physician. Teaching sessions were not formally scheduled to allow for flexibility. Surveys regarding INFR curriculum use were administered to NFIs two weeks after their rotation, and data was collected between October 14, 2019 and February 2, 2020.

The survey response rate was 62.5% (30 out of 48 NFIs). Twenty-three of 30 NFIs (77%) spent less than 20 minutes on each topic; 25 of 30 (83%) worked on the curriculum independently, and nearly all NFIs performed the curriculum more often independently than with a senior resident or attending physician. Among qualitative comments provided about the curriculum, 82% were positive.

The INFR curriculum piloted in this study was accessible, relevant, time-appropriate, and an overall positive experience for NFIs. Future efforts will refine curriculum content, ensure sustainability, and investigate NFI confidence in the types of clinical scenarios reviewed in the curriculum.

OP13

Striking while the Iron is Hot: Impact of Ethics Education on Pre-clinical Medical Students

Lackey, Blake, B.A.; Chinea, Luis, B.S.

Educational Entity: McGovern Medical School at UTHealth

A lecture series with cases was prepared for pre-clinical medical students focusing on modern and ambiguous ethical scenarios. Students were surveyed to determine how they felt the elective prepared them for ethical challenges in practice and the importance of ethics training. There was considerable impact found in all measures.

When medical students begin their clinical education, they are expected to have a grasp on ethics in clinical scenarios. To assist in medical students meeting these standards, we engaged pre-clinical students in a lecture series on "Hot Topics in Ethics" to apply foundational ethical principles to modern scenarios they may see on wards and in clinic.

Eight lectures were available in the series for students to attend in order to gain some perspective on the basics of medical ethics in a didactic fashion, but also how those could be applied in real-life scenarios. These topics included modern-day ethical gray-areas such as live-donor organ donation, care of adolescent transgender patients, vaccine hesitancy, and more. Students were taught how beneficence, non-maleficence, autonomy, and justice played into each topic. This project utilized a retrospective survey of medical students' preparedness and beliefs about ethics in medicine. To do so, they must have been eligible for elective credit (attending greater than six of eight lectures).

Our survey found that students were more likely to feel comfortable in ethically ambiguous scenarios, felt like they had a greater fund of knowledge with respect to ethics than before the lecture series, and believed that ethics had an important place in medical school curriculum. These results were replicated in short answer portions of the survey as well, with medical students giving reasoning for the importance of ethical education such as, "Ethics is the next step of application of medical knowledge." and "..[It] is really important for us to learn how to approach those topics in a graceful and educated way." These answers speak to a desire for curriculums to lean in to a popular and sought-after topic in medicine that pre-clinical students crave, and provides a groundwork by which a curriculum might implement this successfully.

OP14

Pioneering a Multidisciplinary Breast Clinic: Optimizing Education Improves the Peri-Operative Experience for Adolescent Patients with Symptomatic Macromastia

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Educational Entity: Baylor College of Medicine

The early results of this retrospective study of the Multidisciplinary Breast Clinic at Texas Children's Hospital suggest that this team-based model maximizes peri-operative efficiency and patient experience without sacrificing insurance approval rates.

Rationale

Adolescent patients with macromastia often present with both physical and psychosocial complaints related to their breast size.^{1,2} These symptoms can be successfully addressed through reduction mammoplasty.²⁻⁴ However, insurance companies often deny breast reduction claims for adolescents, either citing the operation as cosmetic or citing patient failure to pursue non-surgical options, such as physical therapy and psychologic treatment.⁴ In an attempt to ameliorate these challenges to performing reduction mammoplasty in adolescent patients, we have established a multidisciplinary breast clinic (MDBC) designed to both optimize these patients' peri-operative experience and to maximize the number of eligible patients with insurance approval for breast reduction surgery.

Project Description

Implemented from April-June 2018, the MDBC at Texas Children's Hospital includes the following providers: plastic surgeons, physician assistants, physical therapists, psychologists, dietitians, and clinical schedulers. Following phone screening for surgical contraindications, patients are invited to attend a group meeting with their guardian(s) to meet all members of the treatment team. Each clinical team then individually assesses each patient, makes recommendations, and schedules follow-up. Optimal candidates are scheduled for surgery, and the process for insurance approval begins. Patient satisfaction survey results were collected following implementation of the MDBC (June 2018-February 2020). Descriptive analysis was performed on the number of patients responding "poor," "fair," "good," and "excellent." To track insurance denial rates, reduction mammoplasty patients seen 1 year before after the MDBC implementation period were included in this study. Retrospective chart review was performed to determine which patients successfully received insurance approval and subsequent surgery, and which patients were denied insurance approval and did not receive surgery. Pre- and post-MDBC insurance denial rates were compared using Pearson's Chi-squared test. A p-value of <0.05 was considered statistically significant.

Results and Discussion

Since June 2018, a total of 37 patients have completed our patient satisfaction survey; in all categories surveyed, 95-100% of patients have given a rating of either "good" or "excellent." A total of 59 patients have been assessed during the study period; 27 presented prior MDBC implementation, and 32 presented to the MDBC. There was no significant difference between the rate of insurance denials following implementation of the MDBC. These early findings suggest that the MDBC model can provide a structured, highly satisfactory peri-operative experience to adolescent patients with symptomatic macromastia. Longitudinal studies will be required to determine the true impact of the MDBC on insurance denial rates. Ultimately, even if patient is not considered to be a good surgical candidate, the MDBC can help optimize each patient's health and candidacy for surgery.

OP15

Innovative Multi-Stage Training for Preclinical Students to Find, Critically Assess, and Present Clinically Related Basic Science Literature

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Educational Entity: Texas A&M College of Medicine

Understanding advances in basic, mechanistic research is increasingly important for physicians. In “Medical Student Grand Rounds (MSGR),” first-year medical students are trained to find and critically assess basic research papers on a relevant, self-selected topic, and develop a presentation for peers. Involving basic science faculty as mentors dramatically improved outcomes.

Rationale

Hypothesis driven, mechanistic research is a driving force of medical advances. Understanding basic research results is increasingly important for physicians, as they meet the challenges of critically assessing new approaches to diagnosis, therapy, and prevention. To enhance life-long learning and critical assessment skills, we developed the MSGR course for 1st year medical students. As students complete the milestones, they identify and evaluate basic, mechanistic research articles that report cutting-edge advances. Students develop skills in translating this information to their patients, colleagues, and trainees. These activities complement training in evidence-based medicine by incorporating mechanistic research that demonstrates cause and effect relationships.

Project Description

Throughout the semester, students are mentored by basic science faculty through development of skills needed for synthesis, integration, and translation of critical basic science concepts. Students complete eight milestones starting with PubMed search exercises and refinement of a focused basic research topic. They then develop two detailed, annotated outlines of the introduction/background and research results sections of their MSGR presentations. Milestones also include a video on developing effective presentations, and attendance at 2 institutional Grand Rounds presentations. MSGR culminates in small group, oral presentations that emphasize the translation of primary mechanistic research to clinical practice.

Results and Discussion

Mentoring faculty provided detailed feedback on and grades for specific milestones, and self-evaluations showed that students reported increased proficiency in interpreting primary basic research articles, preparing and delivering presentations, understanding links among basic and translational research and clinical applications, and self-directed learning. Students also indicated that milestones reduced procrastination and provided a stepwise process to enhance oral presentations skills. The course also promotes collaboration between basic science faculty and students, building relationships that positively impact the medical school experience. Although perceived grading variability remains a challenge, student ratings of the value of the course have continued to improve.

OP16

EEG Education in Neurology Residency – Baseline EEG Knowledge and Resident Perception.

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Educational Entity: Baylor College of Medicine

This project showed that, on average, residents were able to correctly identify less than half of normal/abnormal EEG findings. Almost half of residents did not feel like they meet recommended EEG milestones for their training level. These findings demonstrate the need for further studies on EEG education during residency

Rationale

To (i) assess baseline EEG knowledge in the adult neurology cohort at Baylor College of Medicine and (ii) survey residents perceptions on EEG learning, effective educational strategies and barriers to optimal EEG education. In accordance with the ACGME milestones project, adult neurology residents, by the time of graduation, should be fully capable of reading EEGs. However, there are no standardized methodologies for resident education.

Project description

Residents were given an EEG quiz and an online-based survey in Aug- Sep 2019. The quiz was divided in two parts, composed of normal and abnormal EEG examples. The EEG survey consisted of 23 questions that focused on resident perception of EEG learning including educational barriers and possible solutions.

Results and discussion

Twenty-one adult neurology residents completed the normal EEG quiz and 19 the abnormal EEG quiz. The scores are summarized in table 1; overall, residents had a mean score of 41% on normal EEG findings and 40% on abnormal EEG. The survey was completed by 28 adult neurology residents. Approximately 50% of the respondents reported not meeting the recommended EEG milestones for their respective level of training, and 43% stated not being able to read EEGs even with supervision. The most common barriers to EEG learning were insufficient exposure, insufficient responsibility to read EEGs during EEG rotation, and inability to link EEG learning to direct patient care. The most efficient ways to teach EEG were believed to be a combination of didactic lectures and reading EEGs with supervision from an attending. On average, residents were able to correctly identify less than half of normal and abnormal EEG findings. Almost half of residents did not feel like they meet recommended EEG milestones for their training level. These findings demonstrate the need for further studies focusing on optimization of EEG education during residency.

OP17

High Value Care Morning Report: A team-based, interdisciplinary conference to teach cost-effective care

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Educational Entity: Baylor College of Medicine

Health care spending continues to rise with billions of dollars wasted annually. Therefore, it is imperative that we educate physicians in training on the tools and resources of high-value care practice. We aimed to create an interdisciplinary, interactive morning report case-based conference emphasizing the cost-effective, evidence-based work-up.

Rationale

Health care spending continues to rise with billions of dollars wasted annually. Therefore, it is imperative that we educate physicians in training on the tools and resources of high-value care practice. We aimed to create an interdisciplinary, interactive morning report (MR) case-based conference emphasizing the cost-effective, evidence-based work-up.

Project Description

Objectives of conference included:

- 1) Improve knowledge in HVC principles
- 2) Improve confidence in utilizing HVC resources
- 3) Provide a forum for interdisciplinary collaboration

During the conference, the resident presents the case's history and physical. The audience then is divided into teams of mixed learner levels to determine their differential diagnosis, what tests/procedures they would like to order for evaluation, and their estimation of the prices for each test they have ordered. The conference concludes with the ideal evidence-based HVC evaluation, as well as the estimated prices of these services.

Results

From January 2018 to December 2018, twenty-four conferences were given with approximately 300 total attendees. Seventy attendees were surveyed before and after implementation of the HVC morning report curriculum. Surveys addressed knowledge, skills, and attitudes for HVC using a 5-point Likert scale (1 = strongly disagree or very unlikely, 5 = strongly agree or very likely). The most agreed upon statement, before and after the MR, was the statement: "Physicians have a responsibility to patients to consider cost when providing treatment." Following conference attendance, all items showed an increase towards "strongly agree".

Discussion

We have now adapted this conference to three different hospitals, which demonstrates generalizability for replication. By utilizing the preexisting MR conference, our HVC conference can be easily adapted by internal medicine residency programs. We expect future learners will provide better quality of care to patients through a focused attention on value that will ultimately improve health equity.

OP18

Developing a Curriculum on Transgender Healthcare for Physician Assistant Students.

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Educational Entity: UT Southwestern; UT Arlington

We are offering a short oral presentation on how one Physician Assistant program went about developing a curriculum to address health for the transgender community. Currently there are no known studies on PA students' baseline clinical knowledge or personal beliefs regarding transgender patients, nor on the implementation of transgender health education into PA programs' didactic coursework. Thus, the purpose of this study was to 1) evaluate PA students' knowledge, skills, and attitudes towards transgender patients; 2) develop and deliver a lecture on transgender health; and 3) determine changes in knowledge, skills, and attitudes post-lecture attendance.

Purpose

The purpose of this project was to: 1) evaluate physician assistant (PA) students' knowledge, skills, and attitudes towards transgender patients; 2) develop and deliver a lecture on transgender health; and 3) determine changes in knowledge, skills, and attitudes post-lecture.

Methods

A 32-item survey was developed in RedCap and emailed to enrolled PA students (N=169). Students were then invited to a two-hour lecture on transgender-specific psychosocial topics and clinical skills plus medical treatment for gender dysphoria. Attendees retook the survey after two weeks.

Results

Initial mean knowledge and skills self-assessment scores were below 3 on a 7-point Likert scale. All measures improved following the lecture ($p < 0.001$ for all). Overall, 86.7% of students were interested in the addition of transgender health into their didactic curriculum.

Conclusions

Our results illustrate insufficient student competence in transgender medicine. Our proposed transgender curriculum may be a useful guide for educators wanting to integrate this topic into their instruction.

OP19

Investigating Effective and Preferred Components of Anatomy Reviews for First-Year Medical Students

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Educational Entity: McGovern Medical School at UTHealth

Limited data exists on medical student perceptions of anatomy pedagogue review sessions at McGovern Medical School. Surveys administered to first-year gross anatomy students showed variability on whether pedagogue-led quizzing or structure list review was more effective and enjoyable. Students consistently desired usage of multiple cadavers and addressing overcrowding during reviews.

Background and Goal

At McGovern Medical School, pedagogues are second year medical students who organize weekend review sessions for the first-year gross anatomy course. There is limited data within McGovern Medical School on which review styles students found to be most enjoyable and most effective in their learning. This study evaluated student perceptions about different learning methods in order to optimize the structure of anatomy review sessions.

Methods

Surveys were administered to students after each of the three blocks of their gross anatomy course. Surveys contained three core questions: Preferred study resources, helpful activities during sessions, and enjoyable activities during sessions. Additional space was given for open-ended comments. Results were analyzed using descriptive statistics and thematic analysis.

Results

The first, second, and third block survey received 29, 13, and 5 responses, respectively. A majority of first block respondents found quizzing over structures to be less effective and enjoyable compared to going through the structure list without quizzing (Effectiveness: 51.7% vs. 86.2%, Enjoyable: 48.3% vs. 72.4%), while most second block responders found quizzing over structures to be more effective and enjoyable than going through the structure list (Effectiveness: 69.2% vs. 38.5%, Enjoyable: 61.5% vs. 30.8%). Open-ended responses indicated that students consistently preferred pedagogues reviewing the structure list with multiple cadavers. Students also desired more pedagogues to be available per weekend to address issues such as overcrowding.

Conclusion

Varying quantitative results each block highlights the need for a structured feedback system to improve the quality of future pedagogue sessions. Results suggest that pedagogues should increase the pedagogue-to-student ratio, improve visibility of structures during overcrowding, use multiple cadavers, employ a variety of teaching styles, and ensure reviews are succinct. Employment of Likert scale questions, arranging for in-person feedback, and recording attendance could expand future studies aimed at improving anatomy review sessions.

OP20

Cleft Care Packages and the Impact on Postoperative Care Following a Primary Cleft Lip Repair

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Educational Entity: Baylor College of Medicine

The postoperative care following primary cleft lip repair can be overwhelming to many families leading to premature discontinuation of nasal stent use and lip care. To assist with this problem our team produced an educational care package to give to families prior to discharge from the hospital.

Background

Each year, one in 690 births are diagnosed with a cleft lip and/or palate, and treatment requires several surgeries. The first procedure is a primary lip repair. Postoperative care of the lip/nose is essential for the outcome of the repair. Given its importance, many families are overwhelmed by the process of lip/nasal cleaning which has led to premature discontinuation of nasal stent use and lip care. Our providers noticed a significant amount of early termination of lip/nasal care amongst our patients.

Objective

To provide caregivers with the educational resources needed to care for a surgical site following primary cleft lip repair and evaluate its efficacy on postoperative care.

Methods

Packages were given to caregivers at discharge following repair. Packages included instructions and supplies needed for surgical site care. At discharge an advanced practice provider (APP) obtained informed consent and a questionnaire that established baseline knowledge of surgical site care. Following the questionnaire, the APP demonstrated how to care for the site using the package provided. Scar healing and nasal stent compliance were evaluated at postoperative follow up.

Results

Thirty two families were enrolled in this study. Our data supports that caregivers who are provided resources to care for the site had increased comfort level, preparedness, and compliance rates following a primary cleft lip repair. Eighty-four percent of respondents strongly agreed that the package provided aided in preparedness for site care with 100% of respondents recommending the resources to future families undergoing a cleft lip repair.

Conclusion

Caregivers feel comfortable and equipped with their ability to care for their child's repaired cleft lip when given the appropriate instructions and supplies. In addition, they would recommend the packages to future families following a repair. Empowering families to be proactive in postoperative care will potentially lead to better outcomes in cleft care.

OP21

Integrated Plastic Surgery Applicant Review: Important Factors and Selection Criteria

Shih, Linden, B.S.; Schultz, Kelly, M.D.; Davis, Matthew, B.S.; Reece, Edward, M.D., M.B.A.; Winocour, Sebastian, M.D., MSc, FACS

Educational Entity: Baylor College of Medicine

Matching into integrated plastic surgery residency is highly competitive. In order to aid future plastic surgery applicants, we identified the most important subjective and objective criteria used to select applicants for integrated plastic surgery residency positions. A description of our own institution's plastic surgery applicant selection process is also outlined.

Matching into integrated plastic surgery residency is highly competitive. Applicants to these programs are among the most accomplished graduating medical students, consistently demonstrating some of the highest USMLE scores, mean numbers of research publications, and rates of Alpha Omega Alpha (AOA) Honor Medical Society membership. The applicant review process requires programs to rely on a number of objective and subjective factors to determine which of these qualified applicants have the most potential for success. We outline these factors, discuss their correlation with resident performance, and provide our institution's applicant review process both for applicants hoping to optimize their applications for success in the National Resident Matching Program (NRMP) Match and for program faculty hoping to optimize their resident selection process.

Extensive literature review was performed to identify the most important objective and subjective factors considered in the selection of plastic surgery applicants. Of the objective criteria, research productivity, USMLE scores, AOA membership, and medical school reputation were most important. Of the subjective criteria, high quality letters of recommendation, performance on plastic surgery rotations, and the interview were most highly valued factors. Residency program directors, chairmen, and residents all play a role in generating the rank order list.

At Baylor College of Medicine, the plastic surgery applicant review process first consists of a USMLE score prescreen. Faculty may then decide on a set number of applicants to invite for interviews based on a variety of criteria. This educational report will hopefully provide transparency about the integrated plastic surgery applicant review process and aid potential plastic surgery applicants with matching into this highly competitive specialty.

OP22

Assessing the Quality of Peer Feedback Amongst Pediatric Residents

Sevey, Nicholas, M.S.; Sam, Maurine; Omoruyi, M.D., M.P.H.

Educational Entity: McGovern Medical School at UTHealth

Peer evaluation is a critical component in the development and training of residents by allowing them to assess cognitive and noncognitive skills that might not be observed by faculty, but research assessing the quality of feedback is limited. Our study found a need for more focus in this area.

Background

Peer evaluation is critical to the development of residents because it assesses cognitive and noncognitive skills not necessarily observed by faculty. Additionally, the type of feedback influences the quality of information available to the resident.

Objective

The purpose of this study was to evaluate the quality of open-ended feedback provided to pediatric residents by their peers.

Methods

At our mid-sized institution, pediatric residents complete a peer evaluation form for all residents that they have worked with during a clinical rotation. The form is a series of Likert scaled questions and an open-ended feedback section. A literature review showed that feedback should be specific, objective, and provide an actionable plan for improvement. Based on this, we created a rubric assessing how specific (low, moderate, or high), actionable (yes or no), and objective (low, moderate, or high) open-ended feedback was. Two authors retrospectively analyzed 1368 peer feedback comments for 26 graduating pediatric residents over their 3-year training period.

Results

Cohen's kappa for each criterion demonstrated high inter-rater reliability. Our analyses determined that 59% of the comments were moderately or highly specific ($k=0.834$), 3% were actionable ($k=0.969$), and 92% were moderately or highly objective ($k=0.935$) when evaluated separately against each criterion in the rubric (e.g. specificity alone). When analyzing the overall quality of each comment, less than 5% of comments ($k=0.958$) were determined to be specific (moderate or high), actionable, AND objective (moderate or high). While a majority of comments were evaluated to be specific and/or objective, we found the greatest disparity in feedback quality was a lack of actionable feedback.

Conclusion

These results indicate the need for residents to improve the quality of feedback they provide to their peers, particularly in the area of actionable information. Future efforts should focus on creating and evaluating strategies that elicit higher quality feedback.

OP23

Are Medical Students Recommending Cost Conscious Care?

Szauter, Karen, M.D.; West, Holly; Dawlett, Marie

Educational Entity: The University of Texas Medical Branch at Galveston

Everyone has a role in managing healthcare costs. We compared the costs of diagnostic tests ordered by medical students to the cost of tests ordered by an expert provider. Student costs were notably higher in all encounters, prompting us to identify curricular opportunities for deliberate teaching of this concept.

Background

Ordering excessive or unnecessary investigations has a notable financial impact on patients and the healthcare system. The majority of training regarding appropriate selection of high value and cost-conscious diagnostic testing has focused on GME trainees and practicing physicians.

Goal

We sought to assess diagnostic testing costs generated by medical students for common medical problems and to use this information to guide our educational efforts related to cost effective care.

Methods

Data for this work were derived from a senior medical student standardized patient (SP)-based clinical skills examination. Following patient encounters, students were required to document their findings including recommended initial diagnostic testing. Lists of diagnostic tests were extracted from students' notes. Faculty were asked to review written versions of six scenarios and provide a list of initial diagnostic tests they would order. Literature-based guidelines for each clinical problem were reviewed. The faculty responses and guidelines were used to establish the expert-derived initial work-up for each scenario. Diagnostic test prices were determined from a public website (MedSave.com). The cost of individual student-recommended testing and the expert-derived testing were compared. Descriptive statistics were used in the analysis.

Results

Student notes analyzed per scenario ranged from 102-112. Students could order up to five diagnostic tests; the mean tests ordered was 3.65. The mean student test cost, ranging from \$1,062 to 1,919, consistently exceeded that of the expert-derived test costs (\$193-\$647) and greater than 80% of students (80.2–95.3%) generated test costs higher than experts in all scenarios.

Conclusion

This work suggests that our students are not discriminately ordering diagnostic tests. Students may be displaying a need to perform a full diagnostic evaluation versus performing a sequential evaluation. While this is a testing situation and students may be ordering tests indiscriminately, we are reevaluating opportunities to embed cost-conscious care in our curriculum.

OP24

Integration of Clinical Skills Exercises (CSE) in the Gross Anatomy and Radiology Course (GAR)

Walden, Sara; Cicalese, Vittoria; Hassan, Anaas; Rastellini, M.D.

Educational Entity: The University of Texas Medical Branch at Galveston

This is an innovative strategy to promote active learning through simulation of clinical scenarios. The practice of clinical skills was integrated, as individual and team activity, in the GAR course. Students' feedback was evaluated through a focus group analysis and results were integrated in a continuing quality improvement study

Rationale

One of the most challenging aspects of medical education is curriculum integration. Case-based learning has been a revolutionary approach achieving consensus in medical schools worldwide. Strategies are investigated to promote active learning through clinical scenario simulation. The purpose of this study was to integrate the practice of clinical skills in GAR (year-1 course) by correlating anatomy, clinical scenarios and procedures during the dissection of a human body.

Project Description

First year students were exposed to clinical cases through NBME-style questions (over a 4- day time period) addressing patient assessment, diagnosis and management. The case would refer to the body dissected in the lab and evolve with the identification of a procedure to be performed. The writing of an operative report would then complete the exercise. The activity included individual and team-based components. Learners were exposed to six cases/procedures over the duration of the course (8 weeks). The outcome of the exercise was evaluated through a focus group analysis where students, at the presence of observers, responded to open-ended questions

Results and Discussion

All students (230) participated in the CSE. Working as individuals (answering questions) and teams (procedures/operative reports) they addressed cases related to the anatomical parts dissected every week. Procedures performed were: thoracentesis, spinal tap, carpal tunnel release, urinary catheter insertion, central line placement and cricothyrotomy. Overall, the CSE was well perceived generating confidence and enthusiasm. Based on feedback, operative reports and focus group response, learners gained confidence with patient management/procedures, spatial anatomy, potential risks/complications while exercising critical thinking, medical intuition and compassion. Areas of improvement were identified and integrated in a continuing quality improvement study. Based on our experience, integration of CSE in the GAR lab through clinical cases and procedures applied to human bodies used for dissection could represent a valuable strategy of active learning with significant student engagement.

OP25

Evaluation Disparities and Implicit Bias in Medical Student Grading: Findings from Evaluator Focus Groups

Williams, Amanda, M.D.; Greely, Jocelyn, M.D.; Ratan, Bani, M.D.; Dunnington, Helen, M.D.; Kilpatrick, Charlie, M.D.

Educational Entity: Baylor College of Medicine

A needs assessment of medical student evaluators to uncover reasons for evaluation disparity in order to work towards improving the quality, consistency, and accuracy of OB/GYN clerkship evaluations

Background

Accurate evaluation of medical student clinical clerkship performance is challenging. Scale-based student ratings often do not correlate to comments provided. Additionally, there can be a wide variance of scores for the same student by different evaluators. Information regarding differing grading systems is available, but there is a lack of guidance around inter-rater reliability and implicit bias.

Goal

To perform a needs assessment of medical student evaluators to uncover reasons for evaluation disparity in order to work towards improving the quality, consistency, and accuracy of OB/GYN clerkship evaluations.

Methods

From May - July 2019, we performed three resident and faculty focus groups. We began the session discussing evaluation form reliability and current behaviorally anchored rating scales, same student evaluation inconsistencies demonstrated between evaluators, accuracy, and potential evaluator bias. Qualitative analysis utilizing two reviewers was used to identify themes.

Results

Overall, participants expressed a need for more formal student evaluation information and instruction. Other themes were requests for education and information regarding the evaluation forms and student grading, an admission of variation between 'hard' and 'easy' graders, and implicit bias in student evaluation, particularly regarding perceived specialty choice.

Conclusions

Evaluators felt a need to better understand how evaluations contributed to student rotation grades and were interested in improving the quality, consistency, and accuracy of evaluations. Time with students directly influences the accuracy of objective evaluations. Implicit bias around one's own 'grading scale', and around student specialty selection, can influence student evaluations.

OP26

Development and validation of a theory informed group learning environment assessment tool for graduate medical education programs

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Educational Entity: Baylor College of Medicine

Studies show that psychological safety (PS) is important to resident perception of work environments. There is no evidence addressing relationships between PS, learning behaviors or its' impact on learning outcomes. We developed and gathered validity evidence for a group learning environment assessment tool using "Teaming Theory" as a theoretical framework.

Rationale

Recent studies have shown that psychological safety may be important to resident perception of the work environment, and improved psychological safety enhances trainee satisfaction surveys; however, there is no evidence in medical education literature specifically addressing the relationship between psychological safety and learning behaviors or its' impact on learning outcomes.

Project Description

We aimed to develop and gather validity evidence for a group learning environment assessment tool using Edmondson's "Teaming Theory" as a theoretical framework. In 2018, investigators developed the preliminary tool. The authors administered the resulting survey to neonatology faculty and trainees at Baylor College of Medicine morning report sessions and collected validity evidence (content, response process, internal structure and relations to other variables) to describe the instrument's psychometric properties.

Results and Discussion

Between December 2018 and July 2019, 450 surveys were administered and 393 completed surveys were collected (87% response rate). Exploratory factor analysis and confirmatory factor analysis conducted to test the three-factor measurement model of the final 15-item tool showed an acceptable fit of the hypothesized model with standardized root mean square residual (SRMR) = 0.034; root mean square error approximation (RMSEA) = 0.088; and comparative fit index (CFI) = 0.987. Standardized path coefficients ranged from 0.66 to 0.97. Almost all absolute standardized residual correlations were less than 0.10. Cronbach's alpha scores showed internal consistency of the constructs. There was a high correlation among the constructs. The validity evidence collected and described above (content, response process, internal structure) suggests that the developed group learning assessment tool is a reliable instrument to assess psychological safety, learning behaviors and learning outcomes during group learning sessions such as morning report. Global assessment scores were given to each morning report session and are currently undergoing data analysis for the final piece of validity evidence collected--relations to other variables.

WORKSHOP INDEX

W1

CHIPP: A Framework for Educational Scholarship

Asghar-ali, Ali Abbas, M.D.; Lavingia, Richa, B.S.; John, Vineeth, M.D., M.B.A.

Educational Entity: Baylor College of Medicine; UTHealth McGovern Medical School

This workshop will introduce participants to CHIPP, a framework to guide the development of educational materials and scholarship. Through interactive activities and discussion, participants will learn how using CHIPP can aid career progress, enhance professional satisfaction, and help them embark on a career rich in educational scholarship.

Description of topic/rationale

Ernest Boyer coined the term “scholarship of teaching” to describe the systematic study of teaching to optimize learning. The Association of American Medical Colleges has identified five areas of educational work, including teaching, curriculum development, and learner assessment. Educational scholarship involves the dissemination of ideas and products generated through activities in these domains. Academic institutions increasingly recognize the value of this scholarship, with many offering clinician educator tracks and encouraging the use of educator portfolios in academic promotion. Yet, no simple and cohesive framework exists to guide faculty members hoping to embark on a career rich in educational scholarship.

This workshop will introduce participants to CHIPP, a novel framework designed to guide educational activities. The five components of CHIPP are collaboration, humility, innovation, patience, and persistence. Through interactive activities and discussion, this workshop will highlight the value of CHIPP in aiding career progress and enhancing professional satisfaction. It will demonstrate how to use the elements of CHIPP when developing educational activities and producing scholarly work. Finally, participants will discuss ways in which the CHIPP framework could help with overcoming challenges in developing educational scholarship at their local institutions.

Learning objectives

Upon completion of this session, participants should be able to:

1. Define educational scholarship.
2. Discuss factors that lead to educational scholarship success using the CHIPP framework.
3. Incorporate CHIPP in the planning of future educational efforts.

Activities in the session/timing and participant involvement

Introduction and needs assessment: 5 minutes (ensemble)

Description of CHIPP with case example: 25 minutes (Asghar-Ali)

Share personal experiences of CHIPP in projects: 15 minutes (small group; ensemble)

Discussion of institutional application of CHIPP, barriers and engagement: 15 minutes (large group; John)

Project development using CHIPP: 25 minutes (pair & share; ensemble)

Wrap up: 5 minutes (ensemble)

W2

Fostering Professional Identity Formation Using Social Justice Curricula

Burns, Audrea, Ph.D; Gilelspe, Susan, M.D.; Tatem, Andria, M.D.; Nichols, Julieana, M.D.

Educational Entity: Baylor College of Medicine

Although curricula are emerging on how to develop a mindset of social justice, the ability of educators to coach residents to connect multicultural curricula to social justice is quite challenging, especially within professionalism. This workshop provides hands-on learning using teaching tools in fostering a mindset of social justice in learners.

Objectives

- 1) Define professional identity formation in social justice through developing a mindset of cultural praxis in multicultural education
- 2) Discriminate personal values from social inequality and acknowledgement of biases to developing skills in cultural praxis

Although curricula are emerging on how to develop a mindset of cultural praxis through social justice curricula, the ability of trainers to help residents connect multicultural curricular themes to social justice can be quite challenging, especially in the context of professionalism. Using Kolb's Learning style as a conceptual framework, the goal of this highly interactive and fast-paced workshop is to provide hands on learning using well developed teaching tools for faculty in fostering a mindset of cultural praxis in resident learners. We propose a highly interactive workshop in which the authors will provide a handbook for a combined curriculum adapted from Kumagai, A *et al* of using narrative writing to foster both the humanism and social justice subdomains of professional identity formation. Moreover, the narrative writing prompts were developed using pieces journalism from recent national events to facilitate small group discussions around cultural praxis. This highly interactive workshop will utilize minimal didactics and robust small group activities to guide participants through some of the more challenging aspects of fostering critical consciousness among residents in small group discussions around domains of health disparities and multiculturalism. Using case studies, role play will simulate previously experienced scenarios to facilitate discussion on tools to foster effective narrative medicine seminars. Each participant will leave with essential tools included in a comprehensive handbook covering a myriad of narrative writing pieces around topics highlighting social inequality in race, gender, and religion along with shared experiences of how to navigate uncomfortable discussions within social justice.

Agenda

- 5'-Introduction, Review Objectives, Facilitator/Participant Introduction
- 10'- Case Scenario- Resident Distress- Global Health Experiences
- 15'- Brief Didactic, Integration of Social Justice in Professional Identity Formation
- 30'- Role Play & Reverse Role Play- Simulation of Resident Distress Case Scenario & Reflective Writing
- 20'- Report out- Reflection of Different Viewpoints
- 10'- Discussion of Tool & Handbook

W3

Teaching Learners How to Fish: Using Novel Feedback Tools to Foster Reflection & Strengthen Professional Identity Formation

Burns, Audrea, Ph.D; Jain, Parag, M.D.

Educational Entity: Baylor College of Medicine

Professional identity formation (PIF), has been prescribed as a primary focus of medical education, however, these professional values are often taught through hidden curriculum, often without guided reflection. This workshop will explore multiple feedback tools to guide discussions and activities as to why learners have lapses in professionalism.

Objectives

1. Describe how professional identity formation is integrated into professionalism
2. Identify troublesome knowledge and threshold concepts in professionalism
3. Develop strategies for coaching learners through troublesome knowledge in professional identity formation using multiple tools to facilitate feedback and self-reflection

Professional identity formation (PIF), which involves development of professional values, actions, and aspirations, has been prescribed as a primary focus of medical education, however, these professional values are often taught through hidden curriculum, often without guided reflection. Using Kolb's Learning style as a conceptual framework, the goal of this highly interactive workshop is to train faculty to coach learners towards formulating strong PIF. We will do this by exploring the integration of professional values in PIF and defining troublesome knowledge and threshold concepts (TCs) in professionalism. We will discuss the TCs as critical requisites for learners to move up Keegan's stages of developing professional identity using case scenarios, Poll Everywhere, and small group discussions.

Participants will practice using multiple tools as a guide to facilitate discussion with learners with lapses in professionalism. In small groups, participants will discuss practical strategies used during role-play and identify which tools best fit their learners in cultivating professionalism and share in large group report out. The workshop will conclude with briefly describing take-home tools for further development of understanding how to implement curricula using self-efficacy to improve PIF.

Agenda

5'-Introduction, Review Objectives, Interactive Discussion- What Is Professionalism?

10'-Case Scenario- Discussion of Why Learners Struggle With Unprofessional Behaviors

10'- Brief Didactic, Role of Professional Identity Formation in Medical Education

15'-Small Group Discussion, Why Some Learners Struggle With Unprofessional Behavior

10'- Didactic, Discussion of Threshold Concept as Tool to Teach Professional Identity Formation

30'- Role Play Using Feedback Tool

10'-Report out- Discussion of Tool & Handbook

W4

Holistic Admissions: Becoming Part of the Whole Picture

Elliott, Elizabeth, M.S., PA-C; Love, Elissa, M.S., PA-C

Educational Entity: Baylor College of Medicine

New and seasoned faculty will explore current admissions processes at their home institutions and identify associated personal and institutional implicit biases. This session will explore opportunities for integrating a holistic admissions review and provide tips for maximizing the interview process in order to attract a broader range of applicants.

Description and Rationale

According to the Association of American Medical Colleges (2007), the practice of holistic admissions for student selection has gained popularity, as it permits evaluation of a broader range of criteria important for student success and the selection of individuals with the background and skills needed to meet the demands of a changing health care environment. Having medical providers similar in important dimensions of identity (e.g. race, ethnicity, language, culture and religion) enables communication and improves the provider-patient relationships. Additionally, the assembly of a diverse student body not only with respect to race, ethnicity, and gender, but also in experience, socioeconomic status, and perspective is paramount. A key tenet of holistic review is the recognition that a diverse learning environment benefits all students and provides teaching and learning opportunities that more homogeneous environments do not. The purpose of this session is to allow attendees to examine their home institutions' admissions processes with a holistic lens and develop strategies to enhance their processes using holistic review.

Learning Objectives

Upon completion of the workshop, attendees will be able to: 1) identify implicit personal and institutional biases that exist within their current admissions processes; 2) understand the rationale behind a holistic admissions process; 3) specify opportunities within current admissions processes for implementation of holistic review.

Activities/Participant Involvement

In Section I, participants will be given an applicant profile to screen individually using a sample rubric. In Section II, using PowerPoint and facilitated discussion, workshop leaders will reinforce the positive implications of holistic review by demonstrating: 1) rationale of holistic review; 2) the role of unconscious bias in the screening/selection process; 3) one program's methodologies and successes with holistic review; 4) strategies for implementing holistic review. In Section III, participants will 'rescreen' the same sample applicant as part of their small-group. Groups will then be asked to identify holistic characteristics of applicant as well as other ideas for implementing holistic review, based on knowledge gained from workshop.

W5

MASTERing the Learning Environment: Best Practices in Effective Classroom Management

Everling, Kathleen, Ph.D.; Dolezal, Sarah, M.S.

Educational Entity: The University of Texas Medical Branch at Galveston

In this session, participants will learn the theories and best practices of classroom management using the easy to remember MASTER© model. By the end, participants will create a plan for their learning environments that will allow them to maximize time spent on learning and minimize distracting or off-task behaviors.

Description of the Topic and Rationale

Maximizing learning should be the goal of every educator. Disruptive and off-task behaviors like inappropriate technology usage, learners working on other materials and other behaviors can be detrimental to the amount of time spent learning. In this workshop, participants will learn the foundational theories and best practices of classroom management using the easy to remember MASTER© model for classroom management. Model professionalism. Address issues as they arise. Set the scene for learning. Time is managed to maximize learning. Expectations are clear. Routines and procedures are consistent

Goals of workshop

1. To enhance understanding of the theoretical basis for classroom management
2. To provide specific classroom management strategies that participants can integrate into their practices

Session Objectives

Participants will employ foundational theories and the MASTER model for classroom management to:

1. Discuss current issues with classroom management
2. Identify solutions for classroom management
3. Develop a classroom management plan

Activities included Session, Timing, and Participant Involvement

5 minutes - Present objectives, theoretical foundations and model of classroom management

10 minutes – Small group brainstorm of best and worst managed class, behaviors and rationales.

10 Minutes - Model professionalism. In pairs, complete T-chart of professional behaviors. Introduction to classroom management graphic organizer used throughout workshop.

10 Minutes - Address issues as they arise – brainstorm then discussion. Add issues to organizer.

15 minutes - Set the scene for learning –small groups, discuss how to utilize different classroom spaces, sketch their learning environment.

10 minutes - Time is managed to maximize learning – group discussion of time management issues – add time management to organizer

10 minutes - Expectations are clear – set objectives and behavioral expectations and add them to organizer.

10 minutes – Routines and procedures are consistent. Discuss transitions, problems, solutions, and add to organizer.

10 minutes- Debrief; questions and answers

W6

Educating on Efficiency in the Emergency Room: Using Process Maps to Achieve Value-Based Care

Floyd, Adam, B.S.; Reddy, Rajadhar, B.S.; Morgan, Virginia, M.B.A.; Andrabi, Sara, M.D.

Educational Entity: Baylor College of Medicine

Process Mapping is a quality improvement method used to simplify complex processes involving numerous decision points. This workshop provides scenario-based practice that will facilitate improvements towards numerous healthcare goals, such as increased access to preventive care, effective triage for emergent conditions, specialized care for mental illness, and better EMTALA compliance.

Description of the Topic and Rationale

Process mapping is a quality improvement (QI) technique that uses flowcharts to visualize complex systems and identify areas for improvement or use as a template to create new systems. Process mapping can be especially useful in healthcare, where care decisions can often branch into multiple possible paths, depend on many possible conditions or external factors, and feed back onto each other in loops. We hope to encourage students to engage in teamwork and critically think about system design and efficiency, areas for possible improvements or impediments, and the value of each step in the process in achieving high-quality healthcare for our patients.

Session Objectives

- Identify situations in which process maps can be used for process improvement.
- Analyze and eliminate waste in exemplar processes
- Create a process map based on a local hospital scenario and discuss areas of improvement

Activities included in the Session

- Instructors will lead a small group through a brief didactic.
- Participants brainstorm major steps expected in an example scenario (emergency center)
- Participants are given one specific step in a near-life process to research and discuss in small groups. Instructors provide a planning worksheet to encourage participants to see the process from both patient and clinician perspectives.
- Participants reconvene, sharing knowledge acquired from their respective stages to complete a comprehensive process map of a patient's journey through the emergency center. Participants use dry erase markers and whiteboards to allow for easy revision and space for drafting.

Timing and Participant Involvement

- Stage 1 (20 min): Didactic overview of process mapping with questions.
- Stage 2 (10 min): Brainstorm steps in an exemplar process map in large group format.
- Stage 3 (20 min): Divide into small groups and research decision points in example scenario given by instructors.
- Stage 4 (30 min): Complete a comprehensive process map of a patient's journey through the emergency center in larger group setting.
- Stage 5 (10 min): Debrief and comment on areas of excellence and improvement within large group process map.

W7

Engaging Medical Students in Advocacy

Kahl, Alyssa, B.S.; McKay, Sandra, M.D.; Lunstroth, J.D., M.A.

Educational Entity: McGovern Medical School at UTHealth

There are growing efforts in medical education to address the social factors that often contribute to disease by promoting policy-based change through advocacy. In this workshop, educators will participate in a lecture and writing based exercise that will provide the skills necessary to facilitate an advocacy session for medical students.

The United States is a world leader in medical advancement, yet despite far higher healthcare spending, the United States still ranks last in life expectancy among other developed countries. The imbalance between health care spending and health outcomes in the United States has been strongly attributed to social determinants of health. Physicians are strategically positioned to play the role as advocates to promote change through policy based action to address social determinants of health. As such, an ideal time to expose physicians to understanding the roles of social factors in health is during medical school. In addition to being knowledgeable in basic sciences and clinical skills, it would behoove medical students to understand the social contexts that influence the course of disease and learn the principles to affect change through physician advocacy. Our workshop aims to teach educators how to engage medical students in physician advocacy through an interactive session that ultimately promotes patient health on a population level. The objectives of this workshop are:

1. Describe the importance of advocacy in undergraduate medical education.
2. Demonstrate a method for teaching advocacy.
3. Evaluate the effectiveness of this method.

In our workshop, participants will have an introductory lecture on physician advocacy that will last approximately 30 minutes. Afterwards, small groups will be formed in which short readings on advocacy topics will be distributed and participants will have the chance to create a persuasive argument for their topic through a guided outline (approximately 30 minutes). Finally, for the remaining 30 minutes, participants will rejoin for an interactive talk on discussion topics to address with medical students on their strengths and challenges with physician advocacy and next steps for pursuing a greater role in physician advocacy.

W8

Cultivating Cultural Humility among Health Professional Learners: Creating Spaces for Transformative Learning

Kutac, Julie, M.A.; Ph.D.; Pennel, Cara, Ph.D.; M.P.H.; Schatte, Dawnelle, M.D.

Educational Entity: The University of Texas Medical Branch at Galveston

This interactive workshop will explore multiple pedagogical interventions that inspire self-reflection, cultivate attitudes, and provide opportunities for dialogue about cultural humility that may transform future engagement and practice.

Over the last decade, there has been an increased focus upon promoting cultural humility among providers in order to improve healthcare outcomes. While a robust scholarship exists engaging the topic of cultural humility, gaps remain in the delivery of educational practice.

This workshop will empower educators to return to the classroom with active learning strategies for helping learners explore assumptions and biases within a safe, but challenging classroom experience.

By the end of the session, attendees will be able to:

1. Define cultural humility
2. Compare four curricular interventions designed to promote cultural humility
3. Analyze potential risks and benefits of lesson implementation
4. Describe methods of learner evaluation

The workshop shall include a brief concept analysis on cultural humility (8 min.) and an overview of the four pedagogical lessons (12 min.). Attendees will then participate in an abbreviated learning experience based upon one of the lessons (20 min.). An activity debrief and group discussion will follow that will explore both the potential benefits and the risks of possible harm inherent in some of these activities (15 min.). After the workshop leaders describe evaluation methods (10 min.), attendees will work in groups to develop lesson ideas and learning objectives that they could integrate into their own courses (20 min.). A short Q&A will conclude the workshop (5 min.).

W9

The Survival Guide to Publish or Perish-Avoiding a Crisis in Academic Writing

Ligon, Lee, Ph.D.; M.A.; M.A.R.; Thammasitboon, Satid, M.D., M.H.P.E.

Educational Entity: Baylor college of Medicine

The workshop will provide interactive discussions related to crises that can occur when one fails to establish personal boundaries for writing or inadvertently violates publishing ethics. Using a workbook provided, participants will do individual work and engage one another in pairs and groups to discuss dynamics of actual case scenarios.

Publishing an academic monogram requires more than merely putting words on paper. Even experienced writers often are unfamiliar with two important aspects of writing: preparing for an optimal writing experience and adhering to ethical concerns of the publishing world. In the first portion of this workshop, participants will engage individually and in pairs in identifying the boundaries (e.g., time, space, disruptions) they need to establish in order to protect their personal writing experience, including ways to ensure that others respect and honor those boundaries. We also will look at the toll that disruptions take on our writing projects.

In the second portion, participants will learn and discuss various ethical concerns (e.g., authorship, order of authors, literature review, plagiarism) that can be detrimental, even catastrophic, to their publishing experience if violated. They will engage in interactive discussions, in pairs and groups, to evaluate such decisions as who qualifies to be an author, in what order authors' names should appear, how "fudging" on the literature review is unethical and can lead to embarrassing exposure, and what constitutes plagiarism. The first two considerations are known to be delicate, even political, decisions in certain cases.

Discussions will be based on dynamics of actual case scenarios that required making difficult decisions. The third consideration, literature review, will demonstrate the dilemma and possible public embarrassment, of taking short cuts; and the fourth consideration, plagiarism, will explain the nuances sometimes mistakenly considered appropriate and engage participants in identifying from actual texts portions that have been plagiarized from earlier texts. A workbook provided for use during the workshop includes the entire didactic portion for review afterwards and has valuable take-home documents to enhance the information provided in the workshop.

W10

We Believe in You! Strategies for Coaching with Growth Mindset

Lim, Jonathan, M.D.; Tatem, Andria, M.D.

Educational Entity: Baylor College of Medicine

Growth Mindset is an essential concept for every Health Professions educator and coach. This workshop will review concepts and literature relevant to Growth Mindset in the clinical learning environment. Participants will reflect, discuss and use case-based scenarios to identify strategies to apply Growth Mindset in the clinical learning environment.

Growth Mindset is an essential concept for all educators in Health Professions Education. It can be applied across the continuum, from coaching to the clinical learning environment, offering many important insights to every teacher. Growth Mindset is defined as having the belief that personal skills, knowledge, attitudes, and qualities can be developed through hard work and effort to learn and grow. Multiple studies have been conducted to show correlations between Growth Mindsets and positive outcomes in the fields of business, psychology and K12 education. This workshop will allow participants to define, explore and engage in this important topic and ultimately develop strategies to foster Growth Mindset in their learners.

Session objectives will include understanding the concepts of Growth Mindset and by contrast Fixed Mindset, reflecting on the influence and importance in learning experiences, and applying Growth Mindset to teaching strategies. Participants in this workshop will receive an interactive multimodal presentation reviewing important Growth Mindset concepts in didactic format, reviewing relevant literature, intermingled with small group and think-pair-share activities using facilitated discussion questions. Participants will identify their own mindset by taking an adapted Dweck Mindset Instrument and discussing results while reflecting on learner experiences that have been impacted by Growth and Fixed Mindsets.

The second half of the workshop will focus on the application of Growth Mindset in the clinical learning environment using case based scenarios. Participants will leave the workshop with a plethora of resources to help foster a Growth Mindset in the clinical learning environment at their own institutions.

W11

Clinical Reasoning Essentials:

A Simulation-Based Model to Reduce Cognitive Errors among Healthcare Professionals

Mahran, Khalid, M.D., M.S., FACP; Causey, Kristi, R.N.; MSN/ED; Weber, Stacey, R.N., MSN/Ed; Agwa, Dalis, M.S.

Educational Entity: Texas A&M University College of Medicine

A 90-minute innovative simulation aimed at illustrating the impacts of cognitive biases on clinical decision-making and patient outcomes.

Topic/Rationale

Cognitive biases have been linked to 28% of diagnostic errors and up to 17% of adverse events in hospitals. In 2016, The Joint Commission of patient safety and quality improvement issued a bulletin illustrating common cognitive biases as a health alert. The bulletin contained recommendations for healthcare professionals to mitigate the impact of cognitive biases by implementing cognitive promoting strategies. However, there was a lack of guidance on how to apply this information to clinical decision-making practices.

Session Objectives

1. Educate health care professionals about common cognitive biases that impact clinical decision-making through blended learning strategies.
2. Illustrate how cognitive biases limit situational awareness.
3. Employ clinical reasoning safeguard strategies and metacognition.
4. Reflect on how to prevent cognitive errors in real life case scenarios.

Activities

An integration of didactic and simulation-based education that guides learners through scenarios where cognitive biases lead to medical errors and patient mortality; followed by a verbal discussion that allows learners to reflect on their actions and thought processes.

Time/Involvement

40-minute Interactive Lecture, including an audience assessment of awareness of cognitive biases

20-minutes Simulation

20-minute Clinical Debriefing and post-assessment

10-minute Question and Answer

W12

Trending Now: Generation Z's Arrival at Medical School

Miller, Michael, M.D.; Banks, Pierre, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

An overview of Generation Z's demographics and characteristics; how these characteristics have presented in higher education; how institutions have responded, and the results; and how this applies to the medical educator and institutional policy, through discussion of vignettes likely to be encountered by educators.

Background

Generation Z, those born after 1995, has an upbringing distinct to past generations due to social and technological changes; specifically, a "slow-life" model within a culture of "safetyism" has emerged, creating unique demographical, developmental, and ideological trends. These trends have manifested in colleges in recent years, with institutions learning how to respond to their needs and expectations, with varying results (2). Now that Generation Z has arrived and continues to matriculate into medical school, educators must anticipate and respond to these needs and expectations while considering possible results for everyone involved.

Objectives

- 1) Identify Generation Z and its statistical trends: demographical, developmental, and ideological
- 2) Acknowledge how these trends have manifested within higher education institutions in recent years
- 3) From these events, anticipate the needs of Generation Z at medical school and consider preparatory actions based on recent events at other institutions
- 4) Consider ethical dilemmas and potential consequences of past and possible future institutional responses

Activities/Timing

- 15 minute overview of Generation Z, with slides illustrating generational trends through graphs, figures, news headlines, and surveys. Goal is to identify and characterize Generation Z Handouts with key points provided.
- 60 minute application exercise in small groups, applying concepts discussed to seven 5-10 minute cases based off scenarios medical educators will likely experience based on recent events at other institutions. Examples include: mismatch of student and trainer expectations; professional communication and behavior; conflict resolution; student objections to assignments; and generational thresholds for mistreatment or unfairness.
- 15 minute wrap-up, reviewing take-home points from application cases, with majority of time for Q&A and further discussion.

W13

Teaching the process of discovery in lymphatic education through real-time imaging demonstrations

Rasmussen, John, Ph.D.; Gutierrez, Carolina, M.D.; Aldrich, Melissa, Ph.D.; Sevick-Muraca, Eva, Ph.D.

Educational Entity: McGovern Medical School at UTHealth

In this workshop/demonstration, we will deploy FDA cleared, clinical near-infrared fluorescence lymphatic imaging to show how new concepts in vascular physiology, immunity, and personalized physiotherapies can be taught through hands-on experience. By visualizing the lymphatic vasculature, scientific concepts of complementary medicine may be described in the context of conventional medical treatments. The workshop is designed to instill research curiosity of this forgotten lymphatic vascular system.

The lymphatic vasculature is often the subject of various treatments in complementary medicine or physiotherapies, a field that often lacks the use of any technology to prognose evidenced-based outcomes. In this workshop/demonstration we introduce real-time, point-of-care lymphatic imaging to visualize lymphatic function in participants to spur clinical research curiosity. We will show how lymphatic function alters with physiotherapies, exercise, and breathing techniques. In addition, we provide a synopsis of lymphatic images/movies conducted in over 600 patients imaged on the TMC with various chronic conditions to highlight the role of the lymphatics in health and disease. The use of a point-of-care imaging technology can show clinicians as well as their patients why physiotherapies can become a useful part of their medical treatments. Session participants who agree to be imaged will be administered a mantoux injection of saline and indocyanine green and, with the entire group of participants, will observe their lymphatic function in response to simple physiotherapy manipulations.

The objectives of the session is to (1) educate clinicians of the lymphatic vasculature, (2) demonstrate the use of physiotherapies, and (3) show how direct visualization can aid in driving curiosity, discovery, diagnosis, and improve patient compliance. The session will involve a 30 minute presentation followed by a 60 minute interactive session in which the role of physiotherapies on lymphatic function can be explored with the group, which will be limited to 10-15 persons. The session can be duplicated with parallel or sequential sessions.

W14

Innovations in Healthcare Education: Sharing your Novel Approach

Szauter, Karen, M.D.; Buck, Era, Ph.D.

Educational Entity: The University of Texas Medical Branch at Galveston

Changes in learner needs, technology, and the healthcare delivery landscape require educators to constantly update approaches to healthcare education. Disseminating novel methods of teaching, assessment, or curricular design with the education community is essential. This workshop will define innovations in healthcare education and describe approaches for dissemination of personal work.

Background

Education in healthcare is constantly evolving in response to changes in learner needs, new technology, and the changing landscape of healthcare delivery. This constant flux fuels the introduction of projects or curricula to address the needed knowledge and skills. Sharing these novel educational programs is essential to allow others to address similar gaps in educational programming. However not all new projects or curricula are original, and defining parameters for what makes something “innovative” is its own challenge. This workshop will define, provide examples of, and discuss opportunities for dissemination of innovations in healthcare education.

Objectives

1. Define innovations in healthcare education
2. Contrast an “innovation” with research in healthcare education
3. Apply guidelines from journal editors to critically analyze an innovations report
4. Recognize opportunities to disseminate healthcare innovations
5. Reflect on current practices to identify personal innovations, describe the activity in the format of an innovation report

Activities, Timing, and Participant Involvement for the Session

0-10: introductions and description of workshop objectives

11-30: Didactic with large group interaction. Setting the groundwork. Define innovation with specific attention to innovation in healthcare education. Contrast innovation with research; exploring the commonalties and unique features of each

31-60 Small group work

Review journal guidelines to define the features expected for an innovations report

Apply guidelines to published works

Share findings in a large group discussion

61-70 Large group discussion

Brief overview of journals that currently feature Innovations reports

Other potential sources for dissemination

70-85 Small group work

Personal reflection on current innovative practices in healthcare education with a potential for dissemination

Pair-share to discuss ideas

86-90 Wrap up and questions

W15

Guns and Healthcare: How the Medical Community Can Come Together to Prevent Firearm Related Injuries and Deaths

Topolski, Natasha, B.S.; Zhao, Ning, B.S.; Bagg, Michael, B.A.; Ibraheim, Marina, B.S.; Hestla, Gregory, M.D.; McKay, Sandra, M.D.

Educational Entity: McGovern Medical School at UTHealth

Despite firearm injury being a leading cause of death the United States, there is little formal medical education concerning the topic. In this workshop, basics of gun violence epidemiology, firearm safety, and patient counseling are covered, followed by a discussion on how firearm education should be implemented in medical training.

Firearm injury is a leading cause of death the United States resulting in approximately 40,000 deaths, nearly twice as many non-fatal injuries, and economic costs exceeding \$229 billion annually. Despite this, there is little formal medical education concerning the topic. In 2018, McGovern Medical School took action and became one of two programs in the country offering formal educational programs on gun violence to medical students. Today, the educational programming at McGovern has expanded to include resident educational workshops across several subspecialties including pediatrics, internal medicine and psychiatry. Along with McGovern, there are several universities across the state and country that have begun to offer medical student and resident firearm education, as well as an American Medical Association online continuing medical education module geared toward physicians. During the first half of the session, participants will be introduced to an abbreviated version of our resident firearm safety interactive workshop where they will learn about basic firearm safety and gun violence epidemiology with a hands-on component where participants can practice patient counseling and interact with gun locks. The remainder of the workshop will be dedicated to a discussion of how and when firearm safety education should be implemented in medical training and if we can standardize methods across the state and country.

Our main objectives are to explore (1) reasons why gun violence education could be beneficial in health professional education, (2) discuss and prioritize educational topics relevant for training health professionals regarding gun violence, and (3) identify barriers to introducing firearm education at various levels of health professional training.

W16

Beyond Lecture: Engaging Students through Active Learning

West, Holly, DHEd, PA-C; Everling, Kathleen, Ph.D.; Monteiro, Marconi, Ed.D.; Buck, Era, Ph.D.
Educational Entity: The University of Texas Medical Branch at Galveston

Active learning strategies provide opportunities for deeper levels of understanding—engaging the learners through activities. In this workshop, participants choose two active learning methods: case-based learning, journaling, or team-based learning. After experimenting with the two active learning methods, participants discuss practical application and incorporation of the methods into their teaching.

Description and Rationale

The learning sciences have established active learning as a transformative pedagogy. Adopting active learning over teacher-centered passive learning may benefit health professions education by providing opportunities for deeper levels of understanding—engaging the learners through activities at the individual and group level. In this workshop, participants will choose to experiment with two active learning methods: case-based learning (CBL), journaling, or team-based learning (TBL). Facilitators will engage the small groups in discussion focusing on the advantages and disadvantages of the active learning strategy and brainstorm methods of incorporating active learning methods into their teaching. The overall goal is to enable participants to effectively incorporate active learning into their teaching practices.

Session objectives

Participants will:

1. Analyze the role of active learning in health professions education
2. Practice active learning methods
3. Discuss plans to incorporate active learning into teaching

Session Plan and Activities

Interactive Overview (10 minutes):

Use polling and interactive questioning to discuss the purpose of and evidence for active learning.

Small-group Break-out Stations (30 minutes x 2 stations + 5 minutes to change groups):

Participants rotate through 2 of 3 active learning stations: CBL, journaling, or TBL. Using resources provided and personal experiences, participants practice the method, then discuss advantages, disadvantages, and practical applications. Facilitators will guide group activities.

Large-group Debrief and Q&A (15 minutes)

Use active learning methods including polling, 1-minute paper, and Think-Pair-Share to debrief on the practiced active learning methods

Participants will receive feedback as part of each activity to clarify misconceptions and deepen understanding. Expected outcomes include enhanced understanding of the theoretical basis and practical points of implementing active learning methods. Participants will identify ways to incorporate active learning into their teaching. Participants leave with resources and an initial repertoire of active learning strategies to allow them to implement active learning.

DEMONSTRATION INDEX

D1

Straight to the Point: Engaging Learners through Focused Micro-lectures using the TED Masterclass Training Program

Everling, Kathleen, Ph.D.; West, Holly, DHEd, MPAS, PA-C, CCRP, DFAAPA

Educational Entity: Educational Entity: The University of Texas Medical Branch at Galveston

The University of Texas Medical Branch initiated a faculty development program, using TED Masterclass with Accountability Groups, to educate faculty on the principles of developing and delivering successful TED-style micro-lectures. The purpose of this demonstration is to show how UTMB is utilizing the TED Masterclass program as a training platform.

Background or Rationale

“Micro-lectures” are highly focused presentations on one, well-defined topic. Receiving information in short bursts allow learners to focus their attention effectively, limit opportunities for distractions, and process information without the cognitive overload associated with longer, traditional lectures. Although our students and faculty may yearn for an evolution of the traditional lecture style, faculty educators are not trained on how to create or deliver micro-lectures. The University of Texas Medical Branch initiated a 5-month faculty development program, using TED Masterclass with Accountability Groups, to educate an initial cohort of 25 faculty on the principles of developing and delivering successful TED-style micro-lectures. The purpose of this demonstration is to show how UTMB is utilizing the TED Masterclass program as a training platform.

Goals

The goals of this demonstration are to:

- 1) Show the TED Masterclass program, including the sampling of courses available
- 2) Show the TED Masterclass administrative portal
- 3) Describe our experience with our pilot program
- 4) Data collected to date

Methods

We will demonstrate the TED Masterclass lessons through an app on an iOS tablet. A laptop and projector will display slides showcasing our program, focused on the sequencing of events and Accountability group sessions. Handouts will be available to a) demonstrate how we recruited faculty for the program, b) information provided to participants, and c) surveys to evaluate participant reactions, learned skills, and commitment-to-change.

Results

Our initial survey indicated that 95.53% of faculty were interested in learning how to create micro-lectures. 25 participants were registered from all four schools at UTMB including junior faculty, senior faculty and high-level administrators.

Conclusion

The self-paced nature of the program works well for health professions educators, but the accountability groups focus their learning. This innovative program could serve as a model for others wishing to learn to create micro-lecturers.

D2

Interactive Problem-Based Learning: Improving Medical Student Preparedness Using a Simulated Electronic Health Record.

Fadial, Tom, M.D.

Educational Entity: McGovern Medical School at UTHealth

Interactive Problem-Based Learning (i-PBL) is a novel, web-based application featuring a simulated electronic health record and creates an immersive, engaging learning environment with realistic patient-related activities intended to augment traditional PBL and better prepare medical students for clinical clerkships and beyond.

Rationale

For medical students, the transition from pre-clinical years to clinical clerkships is a dramatic one. This leap is most evident on inpatient clerkships where medical students remain underexposed to core concepts and processes including patient admissions, medical teams and the medical student role, and accessing medical records through electronic interfaces.

Goal

We created i-PBL, a novel, web-based application featuring a simulated electronic health record interface alongside PBL case content. The application, which is accessed by students asynchronously between PBL sessions, offers a more immersive representation of a patient encounter. The strategic goal of improving preparedness through enhanced exposure is achieved through various tasks including placing orders, writing, notes, and “pre-rounding” by accessing notes and new laboratory or imaging results.

Methods

The i-PBL application was incorporated into the medical school curriculum at McGovern Medical School in 2019. Learners encountered the i-PBL application and completed associated tasks including placing orders and synthesizing learning points in an assessment and plan. Learners received targeted feedback on their performance on i-PBL tasks.

After completion of the application, learners were directed to a survey to evaluate their perceptions of the application. Qualitative and descriptive research methods were employed alongside natural language processing sentiment analysis to evaluate student survey responses. In addition, we plan evaluate impact on clinical educational outcomes through comparison of clerkship scores before and after the incorporation of i-PBL.

Results

Survey results were obtained from 214 of 248 participating students. Ratings of interface ease-of-use were highly positive (average 9/10 rating). Perceptions of preparedness related to using an EMR, placing orders, or writing a note were similarly positive (average 8/10 rating). Further, 75% of learners felt that the i-PBL application offered a greater sense of patient “ownership”.

Conclusion

i-PBL is a novel, engaging addition to traditional PBL and improves learner perceptions of preparedness for clinical clerkships.

Video: <https://www.youtube.com/watch?v=meZaOBFBZQI>

SMALL GROUP DISCUSSION INDEX

SGD1

Teaching Professionalism: Attempts to Remove the "Yuck" Factor by utilizing 4th-Year Students to Create Video Vignettes and Facilitate Small Group Sessions

Lunstroth, Rebecca, J.D., M.A.; Koshy, Anson, M.D.; Robles, Tiffany, M.D.

Educational Entity: McGovern Medical School at UTHealth

Professionalism education has been described as "yucky" and centered on prohibited behaviors. To address this barrier, faculty, administration, and MS4 leaders created video vignettes and led small group sessions with MS1s. This session will share our experiences as well as learn from others on how to address the "yuck" perception

Medical students do not matriculate into medical school as fully formed professionals. Thus, it is contingent upon educators to provide students with appropriate opportunities for professional development resulting in graduates who are committed to professional values. However, a lot of these opportunities have been described in the literature as "less than". To address this concern, at McGovern Medical School we assembled a group of medical educators, administrators and student leaders whose task was to redesign a small group professionalism session for MS1s. We took numerous examples of recent concerns and created short video vignettes. Then in small groups co-lead by a faculty member and MS4, we provided a space for students to think critically about these new expectations and compare and contrast them with their previous lives. Next we discussed some of the challenges they faced and concluded with identifying tools for navigating these challenges.

The objectives of this session are to

1. Review the barriers and a solution for creating a robust pre-clinical professionalism curriculum.
2. Discuss differences in the expectations of faculty and students.
3. Identify tools used to overcome commonly encountered challenges to professionalism

The session will begin with a brief overview of the literature. (10 minutes) Next, we will share with the group our recent efforts to engage our learners. (10 minutes) Then we will ask for participants' insights and feedback. (10 minutes) The session will conclude with an open discussion on how other schools are addressing this challenge. (30 minutes)

SGD2

Is High Reliability Organization (HRO) in Medical Education Necessary?

McKluskey, Kristine, M.H.S.

Educational Entity: Baylor College of Medicine; University of Houston

This small group discussion will feature the relationship between safety culture and HRO in medicine through current studies. HRO principles will be defined, detected through attendee survey related to their institutions, and further discussion will occur regarding the necessity and challenges implementing this type of organizational strategy.

Topic and rationale

Literature has reported deficiencies in medical education related to cultural and environmental factors, national constraints, and the expansion of knowledge. Safety culture has been examined through a recent study demonstrating safety culture specifically in hospital units under supportive leadership. Most studies like this are instructional of how a safety culture could reduce error according to high reliability organizational experts as error reductions occur in high reliability organizational settings such as aviation and nuclear power plants. High reliability organization (HRO) can be defined as a process to recognize and reduce error and consists of 5 principles: a preoccupation with failure, sensitivity to operations, deference to expertise, reluctance to simplification, and a commitment to resilience. This process was referenced in a study measuring HRO characteristics existing in business administration programs. Deficiencies have not been examined if they are related to the lack of high reliability organization (HRO) characteristics in medical education. The significance of this problem is that patient safety could be compromised in the absence of a mindful training atmosphere exhibiting HRO characteristics.

Objectives

The objectives are for the attendees to understand the HRO principles, to detect HRO in their institutions, and to present the obstacles, challenges, and arguments for or against its implementation in medical education.

Activities

The leader will provide and summarize previous study articles, define safety culture and HRO, administer the MRO HERO questionnaire, and begin discussion regarding the necessity for HRO and its implementation challenges.

Timing and participant involvement

With the provided 60-minute platform, attendee introductions should last 5 minutes. A 15-minute discussion summarizing the articles and defining HRO and its principles by the leader will follow. The 48-question survey includes a scoring scale of 1-3 and should last 15 minutes or less. In the final 25 minutes, open discussion will conclude the session.

SGD3

Development of a Flipped Classroom and Online Modules to Teach Advocacy and Social Determinants of Health in Medical Education

McKay, Sandra, M.D.; Ford, Christine; Guardiola, Amalia; Ashtari, Elehah; Wang, Litao; Andrews, Jane
Educational Entity: McGovern Medical School at UTHealth

Incorporating online modules is an innovative way to teach social determinants of health in medical student clerkships. This model of online work combined with large group discussion can be implemented across several specialties to address social determinants and give students skills in advocating for patients in a variety of settings.

Advocacy in medical education is sparse as the current emphasis is clinical competency. While clinical competency is clearly very important, medical students need to also focus on caring for the patient as a whole, including the impact of social determinants of health. The physician charter states that the duty of a doctor includes "individually and collectively [striving] to reduce barriers to equitable health care" and "[promoting] justice in the health care system, including the fair distribution of health care resources". To address this, McGovern Medical School developed a flipped classroom approach with online modules integrated in the clerkship curriculum. This allows education on topics encountered on clinical rotations, and an environment to discuss various strategies to understand and respond to societal problems. The framework incorporates case-based learning on a topic pertinent to the clerkship, followed by a brief didactic or video. Students are then asked to participate in a discussion board, which is designed to prepare them for a final in person discussion. By utilizing this flipped classroom approach, we can promote a rigorous discussion on a variety of difficult topics across clerkships. Our current modules are on poverty (in pediatrics), immigrant health (in internal medicine), and LGBTQ health (in psychiatry).

For this small group discussion, we plan to start with a didactic on the importance of teaching advocacy and social determinants (15 min). We will demonstrate the modules, along with discussions on the successes and challenges of addressing social determinants of health by physicians, as well as the importance of inter-departmental collaborations to have a unified educational experience. During the demonstration, we plan to incorporate audience participation so they can fully experience the modules (30 min). We look forward to discussing the unique challenges of teaching social determinants of health, particularly in today's divisive political climate. (15 min).

SGD4

Lessons Learned: Building a Comprehensive Step 1 Preparation Program

Shields, Stacy, Ph.D.; Levine, Ruth, M.D.; Perez, Norma, M.D., DrPH

Educational Entity: The University of Texas Medical Branch at Galveston

UTMB Galveston conducted a pilot Step 1 preparation program to comprehensively meet students' needs through components like a peer mentoring program, a Step 1 elective, wellness programming, key academic policies, etc. The session will include a brief program overview followed by a discussion facilitated through example student cases.

1) The USMLE Step 1 examination has significant implications for both medical schools and their students. With the abundance of conflicting advice and the enormous amount of resources available regarding Step 1 preparation, it is easy for students to feel overwhelmed. As such, the development of effective preparation programs is important. UTMB Galveston conducted a pilot Step 1 preparation program with the goal to more comprehensively meet students' needs. The program included various components such as school-issued Comprehensive Basic Science Examinations (CBSE), a peer mentoring program, webinars, a Step 1 elective course, wellness programming, and key academic policy changes.

2) Upon completion, participants will be able to (1) summarize key elements for student success on the Step 1 examination; (2) consider how these elements can be implemented at their institutions and problem solve potential barriers; and (3) identify strengths and areas for growth in Step 1 preparation programs to generate ideas for future programming.

3 & 4) The session will begin with a brief overview of the piloted program (10 minutes). Through discussion around key example student cases/scenarios (45 minutes), session participants will explore potential barriers of program implementation as well as areas of strength/weakness of both the presented program and their current program(s). Session authors will facilitate this discussion with a focus on providing a space to share resources and ideas across institutions. The session will conclude with a summary of potential future work on this topic (5 minutes).

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