MEDICAL COLLEGE OF WISCONSIN
8701 WATERTOWN PLANK ROAD
MILWAUKEE, WI 53226

MCW

2018 MCW INNOVATIONS IN HEALTHCARE EDUCATION RESEARCH CONFERENCE

APRIL 26 | 8:30AM - 4:30PM

MCW.EDU/
INNOVATIONS

KEYNOTE SPEAKER
POSTERS SESSION
PRESENTATIONS

SPONSORED BY THE
MCW DEPT OF
ACADEMIC AFFAIRS

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WELCOME

2018 MCW INNOVATIONS IN HEALTHCARE EDUCATION RESEARCH CONFERENCE

The MCW Department of Academic Affairs is pleased to host the 5th annual MCW Innovations in Healthcare Education Research Conference. This year marks a slight shift in the focus of the conference as we move from "Medical Education" to "Healthcare Education" to match the aspirations of MCW to become a Health Science University. We hope that our attendees learn not only from medical school faculty, residents, and students, but from our colleagues in the School of Pharmacy and the Masters of Science in Anesthesia program as well as our many guests who collaborate with us on interprofessional learning activities.

We also hope you will take advantage of learning opportunities in competency-based education which is the theme for this year's conference. Our keynote speaker, Dr. John Andrews from the University of Minnesota, will share with us some of his insights as a leader in a competency-based medical school program in pediatrics (EPAC) that involves collaboration with several other medical schools. Several other presentations also will touch upon this theme.

The goals of the Innovations in Healthcare Education Research Conference are:

- To encourage our educators to consider innovations in healthcare education as an area for research focus and scholarship.
- To develop educators research skills and encourage educators, residents, fellows and students to conduct research in healthcare education.
- To learn from one another so that we all benefit from new and creative approaches to educating students and residents.

I want to congratulate all of our presenters on their great work. Please join me in expressing our thanks to their efforts in putting together their talks and posters. And for those who are not represented this year, we look forward to seeing your work represented at new year's conference!

William J. Hueston, MD
Associate Provost for Education and Senior Associate Dean for Medical Education

ABOUT OUR KEYNOTE

John S. Andrews, MD

John Andrews is currently the Associate Dean for Graduate Medical Education, University of Minnesota Medical School and Vice-Chair for Education, Pediatrics. He joined the Department of Pediatrics in July 2006 as the Vice-Chair for Education and Director of the Pediatric Residency Program. In 2012, he was appointed the Associate Dean for Graduate Medical Education in the University of Minnesota Medical School.

Dr. Andrews graduated from the University of Wisconsin Medical School. He completed his internship, residency, and chief residency in pediatrics at the University of Wisconsin Hospital and Clinics. He then completed a fellowship in Academic General Pediatrics at Johns Hopkins. After his fellowship, he joined the faculty at Johns Hopkins in the Division of General Pediatrics and Adolescent Medicine. In 1997 he became Director of Medical Student Education in the Department of Pediatrics at Johns Hopkins. In 2000, Dr. Andrews moved to Auckland, New Zealand to work as a Consultant Pediatrician at Starship Children's Hospital. There he was a member of a multidisciplinary child protection team and was also an Honorary Senior Lecturer in the Department of Pediatrics at the University of Auckland. In 2003, he returned to the United States to become Associate Director of Medical Education and Director of Graduate Education at Children's Hospitals and Clinics of Minnesota.

He sees patients in the Minneapolis Children's Clinic and on the wards at University of Minnesota Masonic Children's Hospital and Children's of MN. His professional interests include humanism in medicine, evidence-based medicine, and medical education.

SCHEDULE

8:30 - 10:30 a.m. On-site Registration/Check-in

Location: Medical Education Building (MEB) Cafeteria Hallway

9:00 - 10:15 a.m. Faculty Development Sessions

Location: Graduate School Classrooms, MEB, M2050 - M2070

- FD1: Developing an Objective Clinical Reasoning Assessment for Medical Students using the Script Concordance Test
- FD2: Survey Design and Execution: Asking the Right Questions to Get the Right Answers

10:30 - 11:45 a.m. Workshops

Location: Learning & Skills West Classrooms, MEB, M2535 - M2585

- W1: But We Don't Have a Room that Big! Innovative Approaches to the Planning Barriers of IPE
- W2: Is That Your Final Answer? Developing, Implementing and Tailoring an Exciting Game Show Education Program
- W3: What can Medical Educators Learn from Engineering Educators: Designing and Aligning Student-Centered Learning

11:45 - 1:15 p.m. Lunch and Keynote

Location: MEB, Kerrigan Auditorium

11:45 a.m.: Lunch pick-up
12:00 - 12:15 p.m.: Welcome and Introduction: Joseph E. Kerschner, MD and William J. Hueston, MD
12:15 - 1:15 p.m.: Keynote: John S. Andrews, MD
presented by the Kern Institute for the Transformation of Medical Education
"Competency-based Education: Lessons Learned from EPAC"

1:30 - 2:45 p.m. Breakout Sessions

	Breakout 1:Innovations MEB, M2555 - M2565	**Breakout 2: Research MEB, M2535-M2585**
1:30 - 1:45 p.m.	iOP1: Maatman	rOP1: Treat
1:45 - 2:00 p.m.	iOP2: Suelzer	rOP2: Webb
2:00 - 2:15 p.m.	iOP3: Havens	rOP3: Resch
2:15 - 2:30 p.m.	iOP4: Redlich	rOP4: Graff
2:30 - 2:45 p.m.	iOP5: Thapa	rOP5: Kaupla

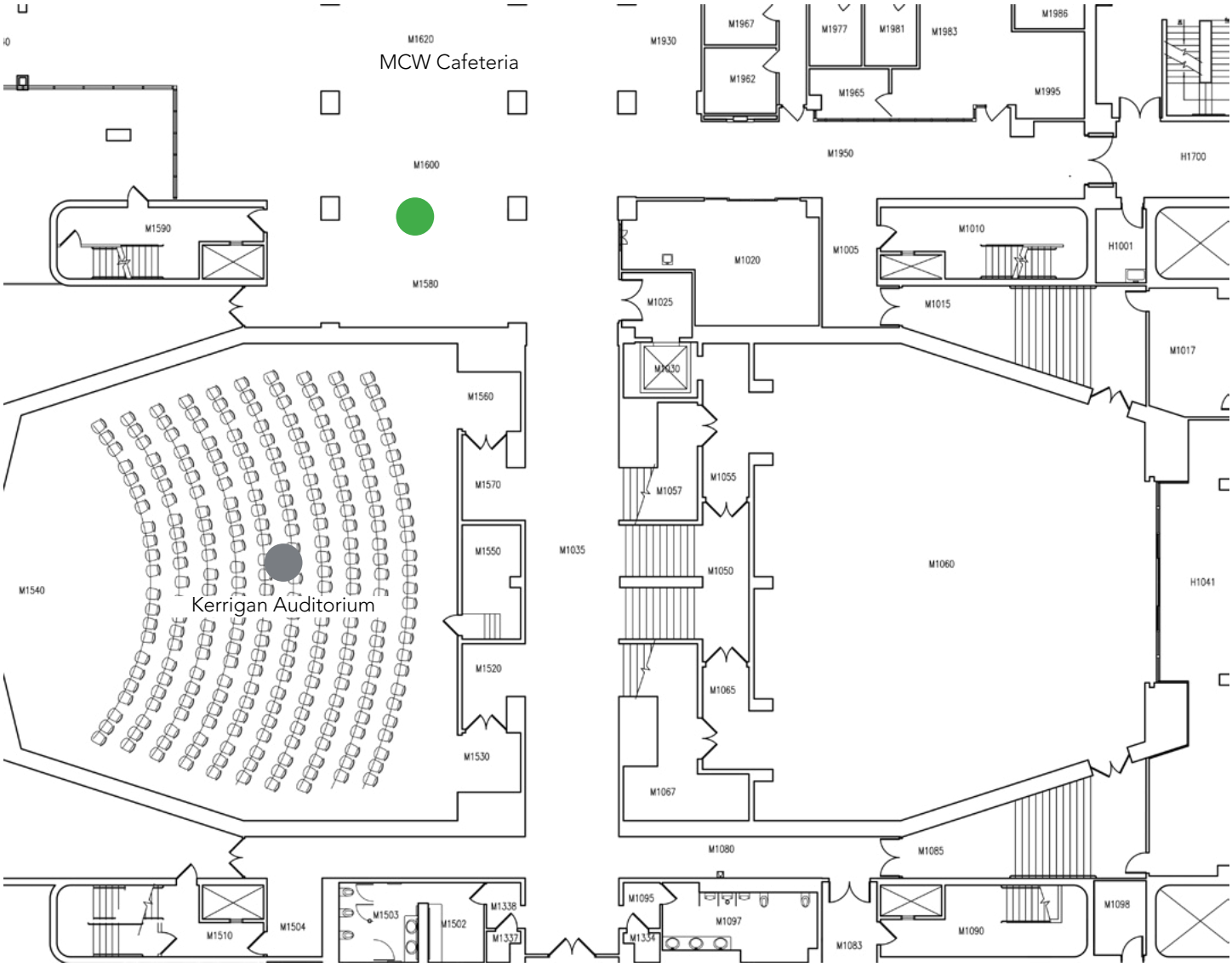
	Breakout 3: Pecha Kucha MEB, M2575 - M2585
1:30 - 1:40 p.m.	pOP1: De Roo
1:40 - 1:50 p.m.	pOP2: Wrzosek
1:50 - 2:00 p.m.	pOP3: Cannon
2:00 - 2:10 p.m.	pOP4: Prunuske
2:10 - 2:20 p.m.	pOP5: Harrington
2:20 - 2:30 p.m.	pOP6: Neist
2:30 - 2:40 p.m.	pOP7: Hueston

3:00 - 4:30 p.m. Posters and Refreshments: Announcement of award winners

Location: Learning & Skills East Classrooms, MEB, M2035 - M2085

MAPS

Medical Education Building, First Floor



On-site Registration/Check-In

Lunch & Keynote Address

MAPS

Medical Education Building, Second Floor

- Oral Presentations
- Workshops
- Posters
- Faculty Development Sessions

DIGITAL NOTES & EVALUATION

QR Code Reader

Use a QR Code Reader to download this program and the evaluation.

Android

Recommendations for Android QR Code Reader/Scanners - downloads free from Google Play and Android Market to all Android Smartphones:

- Barcode Scanner
- I-Nigma Barcode Scanner

iPhone

Recommendations for iPhone QR Code Reader/Scanners - downloads from the App Store on iTunes:

- QR Reader for iPhone
- Zapper scanner

Conference Program

This conference program is available by scanning the QR code below.

http://mcw.edu/InnovationsProgram_2018.pdf

Evaluation

Please complete the conference evaluation by scanning the QR code or visiting the link below.

https://mcwisc.co1.qualtrics.com/jfe/form/SV_efKrbXQQakDDNYh

FACULTY DEVELOPMENT SESSIONS

Time: 9:00 - 10:15 a.m.
Location: Graduate School Classrooms, MEB M2050-M2070

Developing an Objective Clinical Reasoning Assessment for Medical Students using the Script Concordance Test
Leslie Ruffalo, PhD; Karen Hulbert, MD; Robert Treat, PhD; Sabina Diehr, MD; Rebecca Bernstein, MD; Douglas J. Bower, MD

Learning Objectives:
- State the purpose of the SCT-FM as a Competency-Based Assessment (CBA) strategy.
- Describe the content, format and scoring of the SCT-FM.
- Have a draft of 3 SCT questions in their specialty.
- Describe the potential usefulness of the SCT-FM in the larger context of Competency-Based Medical Education for Undergraduate Medical Education at MCW.

Survey Design and Execution: Asking the Right Questions to Get the Right Answers
Kathryn Flynn, PhD; Rachel Cusatis, PhD; Lynn Lewandowski, MS

Learning Objectives:
- Understand survey methodology and how it can be applied to medical education research.
- Be able to develop a survey tool that will engage respondents and provide valid data.
- Learn how to utilize an MCW tool (Qualtrics) to administer surveys.

WORKSHOPS

Time: 10:30 a.m. - 11:45 a.m.
Location: Learning & Skills West Classrooms, MEB M2535-M2585

W1 **But We Don't Have a Room that Big! Innovative Approaches to the Planning Barriers of IPE**
Stefanie George, PharmD, BCPS; Jordan Cannon, MS

Interprofessional Education (IPE) is mandated by accrediting bodies in the majority of health science programs, but integrating IPE into curricula poses challenges which require innovative thinking. In this workshop, participants will be presented common IPE barriers and be challenged to work as a team to think through creative solutions. Participants will walk away with an understanding of how to identify genuine IPE opportunities in their classroom and ideas for what steps to take to move forward with implementation.

W2 **Is That Your Final Answer? Developing, Implementing and Tailoring an Exciting Game Show Education Program**
Erica Chou, MD; Sara Lauck, MD; Michael Weisgerber, MD

This workshop returns for a second year! Years of game show style teaching that has received rave reviews from medical students and residents culminates in this exciting and interactive workshop. Through creating and hosting versions of games such as Family Feud®, Cranium®, Minute to Win It®, and many more, we have expertise that is a veritable "wheel of fortune" to share with the audience. This workshop aims to provide you with the skills and excitement to design and implement your own game show sessions. And that is our "final answer."

W3 **What Can Medical Educators Learn from Engineering Educators: Designing and Aligning Student-Centered Learning Experiences**
Jeff Fritz, PhD; Sandra Pfister, PhD; Sally Twining, PhD; Diane Wilke-Zemanovic, MS

Participants will be introduced to principles learned from a week long course at Olin College of Engineering in Needham, Massachusetts. We will take part in three activities (with handouts and worksheets for completion during the session) that demonstrate the power of the first day of class, application of project-based learning, and aligning student motivation with attainment of learning objectives. Leave this session with ideas to create a robust, multifaceted learning environment.

ORAL PRESENTATIONS

Time: 1:30 - 2:45 p.m. (concurrent sessions)
Location: MEB, M2535-M2585
Abstracts: Appear on pages 22-41

Breakout 1: Innovations

1:30 - 1:45 p.m. **iOP1** **A stressful picture is worth a thousand words: Using comics to reflect on stress in medical education**
Theresa Maatman, MD; Kathlyn E Fletcher, MD, MS

1:45 - 2:00 p.m. **iOP2** **Library and Instructional Design Methods to Improve Student Information Seeking Skills in Self-Directed Learning**
Elizabeth Suelzer, MLIS; Johnathon Neist, MLIS

2:00 - 2:15 p.m. **iOP3** **Capacity Coaching for Patients who are not difficult, but have difficult lives**
Kathryn Havens, MD; Dr. Laura Miller; Kristyn Ertl; Kasey Boehmer, PhD; Hilary Ryan, MSW

2:15 - 2:30 p.m. **iOP4** **Faculty Perceptions of a Structured Mentoring Committee for Early-Career Faculty in the Department of Surgery**
Philip Redlich, MD, PhD; Tracy Wang, MD, MPH; Terri deRoon-Cassini, PhD; Robert Treat, PhD; Marilyn Zarka, MBA; Patricia Morales; Michael Zimmerman, MD; Kellie Brown, MD; Travis Webb, MD, MHPE; Gwen Lomberk, PhD; Ryan Spellecy, PhD; Brian Lewis, MD; Mary Otterson, MD, MS; David Gourlay, MD; Douglas Evans, MD

2:30 - 2:45 p.m. **iOP5** **Effect of faculty feedback on student submitted written history and physical examination note**
Bipin Thapa, MD, MS; Robert Treat, PhD; Kristina Kaljo, PhD; Paul Bergl, MD; Yogita Segon, MD; Kerrie Quirk, MEd; Martin Muntz, MD

Breakout 2: Research

1:30 - 1:45 p.m. **rOP1** **Rising M-1 Medical Student Anxiety: Six Years Later with a New Curriculum and Generation of Students**
Robert Treat, PhD; Diane Brown, MS; Koenraad De Roo; William J. Hueston, MD; Amy Prunuske, PhD; Kristina Kaljo, PhD; Jennifer Janowitz, MS; Dawn Bragg, PhD

1:45 - 2:00 p.m. **rOP2** **Global Clinical Performance Assessment versus Checklist Competency-Based Assessment in Determining a Clinical Performance Score**
Travis Webb, MD, MHPE; Jason Crowley, MS; Robert Treat, PhD; Dominic Fee, MD; Bipin Thapa, MD; Marika Wrzosek, MD; Brian Lewis, MD; Kristina Kaljo, PhD; Jason Burns, MD; Sara Lauck, MD; Stylianos Voulgarelis, MD; Rahmouna Farez, MD; Patrick Foy, MD; Joshua Noe, MD

2:00 - 2:15 p.m. **rOP3** **Pediatric Resident Self-Confidence, Not Past Experience, is Correlated with Their Ability to Perform Bag-Mask Ventilation and Endotracheal Intubation**
Joseph Resch, MD, MS; Abby Smolcich, MD; Amanda Rogers, MD; Robert Treat, PhD

2:15 - 2:30 p.m. **rOP4** **The Adaptive Learner: An Analysis of Differing Perspectives Whereby Medical Students Tailor Resources to Advance Learning**
Crystal Graff, BS; Kristina Kaljo, PhD; Robert Treat, PhD; Kathryn Dielentheis, MD

2:30 - 2:45 p.m. **rOP5** **Analyzing the Effect on Faculty Performance after Receiving Custom Student Feedback Reports**
Greg Kaupla; Robert Treat, PhD; Dawn Bragg, PhD; Jose Franco, MD

Breakout 3: Pecha Kucha

1:30 - 1:40 p.m. **pOP1 Improving Resilience in Medical Students: Starting the Puzzle with Emotional Intelligence**
Koenraad De Roo; Robert Treat, PhD; Diane Brown, MS; Amy Prunuske, PhD; Kristina Kaljo, PhD; William Hueston, MD

1:40 - 1:50 p.m. **pOP2 Develop This! A Pilot Self-Directed Learning Activity for First Year Medical Students**
Marika Wrzosek, MD

1:50 - 2:00 p.m. **pOP3 A Year in the Life of an Interprofessional Educator Coordinator: Lessons Learned about Training Future Collaborators on the Healthcare Team**
Jordan Cannon, MS

2:00 - 2:10 p.m. **pOP4 Impact of Basic Science and Clinical Experience Sequence on Medical Student Performance**
Amy Prunuske, PhD; Robert Treat, PhD; Jacob Prunuske, MD

2:10 - 2:20 p.m. **pOP5 Coming Soon Near You! Kern Institute's Teaching Academy**
Alexandra Harrington, MD, MT(ASCP); Beth Krippendorf, PhD; Bipin Thapa, MD; Diane Wilke-Zemanovic, MS; Kerrie Quirk, MEd; Jose Franco, MD; Cheryl Maurana, PhD; Bruce H. Campbell, MD, FACS; Robert Treat, PhD; Kristina Kaljo, PhD

2:20 - 2:30 p.m. **pOP6 Evaluating Medical Student Learning Through the "Draw It to Know It" Visual-Based Educational Software**
Johnny Neist, MLIS; Roy Long, PhD

2:30 - 2:40 p.m. **pOP7 Developing an Acute Care Course for Incoming Medical and Pharmacy Students**
William Hueston, MD; Jason Liu, MD

POSTERS

Time: 3:00 - 4:30 p.m.
Location: Learning & Skills East Classrooms - M2035-M2085
Abstracts: Appear on pages 42-75

iP1 **Chronic Pain in Anesthesia Practice: A Flipped Classroom & Case-Based Educational Initiative**
Gwynne Kirchen, MD, MCW Department of Aneshtesiology; Christopher Howson, MD, BayCare Clinic, Green Bay WI

iP2 **Increasing Pharmacy Students' Knowledge of Medical Interpretation: Early Collaboration with Medical Interpreter Students**

Sue Korek, MAED, MCW School of Pharmacy; Karen MacKinnon, BPharm, RPh, MCW School of Pharmacy; Rodney Ramos, Sr., BS, Milwaukee Area Technical College

iP3 **Entrustable Professional Activities (EPAs): Mapping Performance to Milestones**

Bethany A. Auble, MD, MEd, MCW; Amanda Rogers, MD, MCW; Michael Weisgerber, MD, MS, MCW; Kris Saudek, MD, MCW; Robert Treat, PhD, MCW; Abigail Schuh, MD, MCW; Danita Hahn, MD, MCW

iP4 **Interprofessional Workshop: Preparing Health Profession Students for Conversations about Advance Directives**

Jordan Cannon, MS, Center for Teaching and Learning; Stacy Barnes, PhD, Marquette University, Wisconsin Geriatric Education Center; Susan Breakwell, PHNA-BC, DNP, Marquette University, Institute for Palliative & End of Life Care; Judy Myers, MS, MT (ASCP), MCW

iP5 **A novel course to track medical students' competency progression throughout the third and fourth years of medical school**

Leslie Ruffalo, PhD, MS, MCW Family and Community Medicine; Kathleen Beckmann, DO, MCW; Ankur Segon, MD, MCW; Raj Narayan, MD, MCW; Alexa Dorman, M.Ed, MCW; Michael Lund, MD, MCW

iP6 **Patient safety superheroes: Using a comic book to train residents on patient safety**

Rushi Patel, BS, MCW M2 Medical Student; Kathlyn E. Fletcher, MD, MA, VA Medical Center

iP7 **Using Maintenance of Certification to Promote Advance Directive Discussions in Primary Care**

Edmund Duthie, MD, MCW Medicine (Geriatrics/Gerontology); Judith Myers, MS, MCW; Deborah Simpson, PhD, Aurora Health Care, UW, MCW; Kathryn Denson, MD, MCW; Steven Denson, MD, MCW

iP8 Use of High-fidelity Simulation Mannequin in an Autonomic Nervous System, Interprofessional Education (IPE) Session

Abir T. El-Alfy, PhD, Biopharmaceutical Sciences, School of Pharmacy, MCW; Sue Korek, MAED, MCW; Jessica Vitch, CAA, MCW; Rachel Kavanaugh, PharmD, BCACP, MCW

iP9 Character in Medical Education: Linking the Triple Aim in Health Care to the Medical College of Wisconsin's Triple Aim for Medical Education

Ryan Spellecy, PhD, Kern Institute; Jose Franco, MD, MCW; Joseph Kerschner, MD, MCW; John Raymond, MD, MCW; Cheryl Maurana, PhD, MCW

iP10 Improving junior medical student (JMS) pediatric knowledge and satisfaction with resident teaching using premade teaching resources

Alina Burek, MD, MCW Pediatrics; Kris Saudek, MD, MCW

iP11 Mock Interview Program for M4 Students: Impact on Residency Interview Experience

Alexa Dorman, MSEd, MCW Academic Affairs; Kathleen Beckmann, DO, MCW; Raj Narayan, MD, MCW; Leslie Ruffalo, PhD, MCW; Ankur Segon, MD, MCW; Nai-Fen Su, PhD, MCW

iP12 Finding meaningful experiences for health/social care students through non-traditional IPE

Michael Oldani, PhD, MS, Office of Interprofessional Education - CUW

iP13 Introducing medical students to laboratory professional students and vice versa: An Interprofessional Education Collaboration on laboratory medicine across the 3 MCW campuses

Alexandra Harrington, MD, MT(ASCP), MCW Pathology, Kern Institute; Cecelia W. Landin, EdD, MLS(ASCP), Marquette University; Robert Treat, PhD, MCW, Academic Affairs; Jordan Cannon, MCW and Marquette University, Office of Educational Improvement

iP14 Developing a Faculty Career Development Academy: Achieving Excellence in Teaching and Learning

Alexandra Harrington, MD, Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education, MCW; Kristina Kaljo, PhD, Department of Obstetrics and Gynecology, MCW; Beth Krippendorf, PhD, Department of Cell Biology, Neurobiology and Anatomy, MCW; Bipin Thapa, MD, Department of Internal Medicine, MCW; Diane Wilke-Zemanovic, MS, Kern Institute, MCW; Kerrie Quirk, MEd, Office of Educational Improvement, MCW; Jose Franco, MD, Kern Institute; Cheryl Maurana, PhD, Kern Institute; Bruce H. Campbell, MD, FACS, Department of Otolaryngology, MCW; Robert Treat, PhD, Office of Academic Affairs, MCW

iP16 Incorporating Self-Directed Learning (SDL) Opportunities to Improve the Integration of Reliable Basic Science Evidence into Future Clinical Practices

Johnathon Neist, MLIS, MCW Academic Affairs; Patricia Hurlbut, MSEd, MT, MCW

rP1 The Relational Structure of Medical Student Values and their Impact on Third-Year Cumulative Clerkship Scores

Robert Treat, PhD, MCW Office of Academic Affairs; Diane Brown, MS, MCW; Craig Hanke, PhD, MCW; Kristina Kaljo,PhD, MCW; Amy Prunuske, PhD, MCW; Koenraad De Roo, MCW; William J. Hueston, MD, MCW; Dawn Bragg, PhD, MCW

rP2 Emotional Regulation of Stress in Medical Students to Lower Burnout in New Three-Year Medical Degree Programs

Robert Treat, PhD, MCW Office of Academic Affairs; Diane Brown, MS, MCW; Koenraad De Roo, MCW; William J. Hueston, MD, MCW; Kristina Kaljo, PhD, MCW; Craig Hanke, PhD, MCW; Amy Prunuske, PhD, MCW; Dawn Bragg, PhD, MCW

rP3 Analysis of Self-Reported Medical Student Academic Efficiency from Student Traits in New Three-Year Medical Degree Programs

Robert Treat, PhD, MCW Office of Academic Affairs; Koenraad De Roo, MCW; William J. Hueston, MD, MCW; Kristina Kaljo, PhD, MCW; Diane Brown, MS, MCW; Craig Hanke, PhD, MCW; Amy Prunuske, PhD, MCW, Dawn Bragg, PhD, MCW

rP4 Perception of Internal Medicine residents regarding writing and presenting case reports

Pinky Jha, MD, MPH, MCW General Internal Medicine/Hospitalist; Sanjay Bhandari, MD, MCW

rP5 Perceptions of Fourth Year Medical Students (M4) on Writing and Presenting Case Reports

Pinky Jha, MD, MPH, MCW General Internal Medicine/Hospitalist; Sanjay Bhandari, MD, MCW

rP6 Medical Student's "Final Answer:" Game Show Teaching Sessions Well Rated Even After NBME Examination

Sara Lauck, MD, MCW Department of Pediatrics; Erica Chou, MD, MCW

rP7 Retrospective Analysis of a Peer Mentorship Program

Alexandria Ponkratz, MCW M3 Student; Karen Thompson, BS, MCW; Margaret Gallagher, BS, MCW; Sara Lauck, MD, MCW; Erica Chou, MD, MCW; Robert Treat, PhD, MCW

rP8 Campus Admissions Preferences for Three- and Four-Year Training Programs at MCW

William Hueston, MD, MCW Family and Community Medicine; Robert Treat, PHD, MCW

rP9 The Use of Direct Observation and an Individualized Simulation Workshop is Associated with Improved Resident Confidence in Bag Mask Ventilation and Intubation Skills

Abby Smolcich, MD, MCWAH - Pediatrics; Joseph Resch, MD, Medical College of Wisconsin Affiliated Hospitals; Amanda Rogers, MD, Medical College of Wisconsin Affiliated Hospitals; Robert Treat, MCW

rP10 Social Network Analysis of First Year Medical Students' Study and Social Connections

Alexandra Frawley, BS, MCW-Central Wisconsin; Anna Wirta-Kosobuski, PhD, University of Minnesota Medical School- Duluth Campus; Amy Prunuske, PhD, MCW-Central Wisconsin Campus

rP11 Do Medical Students Sleuth? Additional Validity of Patient- and Family-Centered Rounds Tool in Rating Presenter Empowerment Actions of Medical Students and Interns

Sarah Vepraskas, MD, MCW Department of Pediatrics; Jennifer Hadjiev, MD, MCW; Sara Lauck, MD, MCW; Anjali Sharma, MD, Children's Medical Group; Heather Toth, MD, MCW; Michael Weisgerber, MD, MCW

rP12 First-Year Medical Resident Perceptions of Patient-Centered, Humanistic Aspects of a New Medical School Curriculum

Greg Kaupla, BBA, MCW Academic Affairs - Office of Measurement and Evaluation; Robert Treat, PhD, MCW; Dawn Bragg, PhD, University of South Dakota; Jose Franco, MD, MCW

rP13 Delivering Feedback to Residents Using a Documentation Assessment Tool

Danita Hahn, MD, MCW Pediatrics; Julie Kolinski, MD, MCW; Heather Toth, MD, MCW; Michael Weisgerber, MD, MS, MCW; Caitlin Pilon, BA, MCW; Amalia Wegner, MD, MCW

rP14 Assessing Second Victim Syndrome among Emergency Medicine Physicians

Alicia Pilarski, DO, MCW; Morgan Schwoch, MSIII; Ramin Tabatabai, MD

rP15 Pediatric and Surgery Program Director Interpretations of Letters of Recommendation

Kris Saudek, MD, MCW Pediatrics; Robert Treat, PhD, MCW; Matthew Goldblatt, MD, MCW; Rachel Weigert, MD, MCW; Michael Weisgerber, MD, MS, MCW

rP16 Medical School Surgical Boot Camps and Suturing Skills: Is there a benefit?

Justin P. Dux, MD, MCW Surgery; Robert McMillan, MD, MCW; Philip Redlich, MD, PhD, MCW; Robert Treat, PhD, MCW; Matthew Goldblatt, MD, MCW; Thomas Carver, MD, MCW; Christopher Dodgion, MD, MSPH, MBA, MCW; Zane Prewitt, MD, MCW; Jacob Peschman, MD, MCW; Christopher Davis, MD, MCW; Jeremy Grushka, MDCM, MSc, McGill University Health Centre; Theresa Krausert, MCW; Brian Lewis, MD, MCW; Michael Malinowski, MD, MCW

rP17 Patient At Risk: Emergency Medical Service Providers' Opinions on Improving an Electronic Emergency Information Form for the Medical Care of Children with Special Health Care Needs in Wisconsin

Quinn Piibe, BA, MCW; Erica Kane, CHES, MPH, Children's Health Alliance of Wisconsin; Marlene Melzer-Lange, MD; Kathleen Beckmann, DO

rP18 Give it a shot: Participation in a "just-in-time" immunization workshop followed by peer influenza vaccination is associated with improved resident confidence in their immunization skills

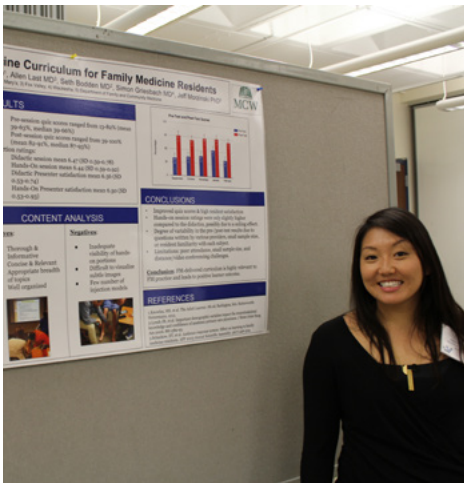
Amanda Rogers, MD, MCW; Michael Weisgerber, MD, MS, MCW Department of Pediatrics

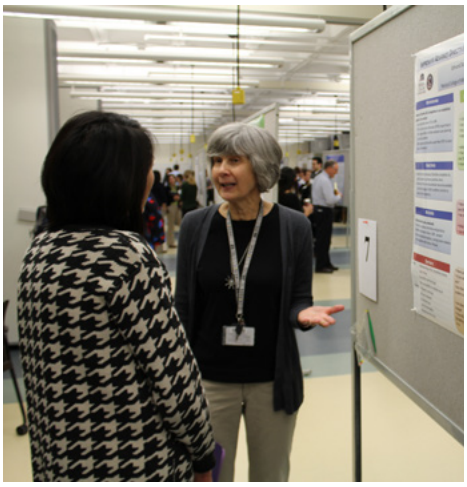
rP19 Increasing Resident Pager Triage Education and Autonomy

Sarah Bauer, MD, MCW/CHW Pediatric Hospital Medicine; Caitlin Kaeppler, MD, MCW/CHW; Kavi Madhani, MD, MCW/CHW; Vanessa McFadden, MD, PhD, MCW/CHW; Rachel Weigert, MD, MCW/CHW; KelseyPorada, MA, MCW

A LOOK BACK AT 2017

A LOOK BACK AT 2017





CONFERENCES OF INTEREST

2018 Medical Education Conferences		
Conference	**2018 Conference Date**	**2018 Conference Location**
University of Southern California Innovations in Medical Education https://keck.usc.edu/medical-education/	February 24-25	Los Angeles, CA
Central Group on Educational Affairs https://www.aamc.org/members/gea/regions/cgea/	March 21-23	Rochester, MN
International Association of Medical Science Educators http://www.iamse.org/annual-conference/	June 9-12	Las Vegas, NV
Association of Directors of Medical Science Education in Psychiatry http://www.admsep.org/meetings.php	June 14-16	Minneapolis, MN
Association for Medical Education in Europe https://amee.org/conferences/	August 25-29	Basel, Switzerland
Generalists in Medical Education http://www.thegeneralists.org/conference	November 1-2	Austin, TX
Association of American Medical Colleges https://www.aamc.org/meetings/annual/	November 2-6	Austin, TX

2018 Specialty Conferences		
Conference	**2018 Conference Date**	**2018 Conference Location**
Society of Teachers of Family Medicine http://www.stfm.org/Conferences/	February 1-4	Austin, TX
Council on Resident Education in Obstetrics and Gynecology and Association of Professors of Gynecology and Obstetrics Annual Meeting https://www.apgo.org/slider/2018-creog-apgo-annual-meeting/	February 28-March 3	National Harbor, MD
Alliance for Academic Internal Medicine Week http://www.im.org/	March 18-21	San Antonio, TX
Council on Medical Student Education in Pediatrics https://www.comsep.org/meetings/	April 11-14	Denver, CO
Society of General Internal Medicine http://www.sgim.org/	April 11-14	Denver, CO
Association for Surgical Education https://surgicaleducation.com/annual-meeting-information/	May 1-5	Austin, TX
Pediatric Academic Societies https://www.pas-meeting.org/	May 5-8	Toronto, CA
Society of Academic Emergency Medicine http://www.saem.org/annual-meeting	May 15-18	Indianapolis, IN
The Wisconsin Surgical Society https://wisurgicalsociety.com/upcoming-conference/	November 2-3	Kohler, WI

ABSTRACTS

ORAL PRESENTATION ABSTRACTS - INNOVATIONS

Innovations Abstracts
An **innovation** abstract is a report on a unique educational experience that has developed enough to provide valuable lessons and insight worth sharing with the medical education community. It is designed to foster scholarly dissemination of novel ideas, methods, or materials in medical education. The focus can be on curriculum, teaching, assessment, or any other aspect of medical training. An innovations abstract summarizes a problem statement, methodological approach, and lessons learned from the study.

Indicates an abstract related to the conference theme of competency-based education

iOP1 A stressful picture is worth a thousand words: Using comics to reflect on stress in medical education

Theresa Maatman, MD, MCW Department of Medicine; Kathlyn E Fletcher, MD, MS, MCW

Presenter Biosketch: Theresa Maatman, MD is an assistant professor in the division of general internal medicine with a primary care practice. She is serving as the course director for the Clinical Apprenticeship course. She has an interest in graphic medicine and its use in medical education.

Problem Statement: The act of reflective writing has been linked to pedagogical outcomes such as professional development, provider well-being and patient care skills. Reflection in the professional realm can lead students to reflect on parts of the learning environment that feel oppressive, their own personal distress and the program of study. This type of reflection needs to be supported.

Approach: We offered an environment for students and residents to reflect on stress they encounter in their training and share by drawing comics. 7 sessions were conducted varying in from 75-120 minutes, based on of time available. Participants then had 30-60 minutes to draw a comic about a stressful encounter. Then 20-30 minutes for discussing their work with their colleagues. Of the 7 sessions conducted, three were mandatory sessions and the other 4 were elective courses. 5 sessions had less than 25 participants. The 2 remaining sessions had more than 25 participants. In total there were 225 participants: 12 First year students (M1), 55 second year students (M2), 92 third year students (M3), 29 fourth year students (M4), and 37 first year internal medicine residents (PGY-1).

Lessons Learned: The total number of students reporting reflection was 168 (74%). 148 participants were in a mandatory session; 97 (66%) of them reported reflection. 77 participated in an elective session; 71 (92%) reported reflection. 91 of 101 (90%) of participants in small group sizes reflected compared to 77 of 124 (62%) in large groups. Overall, 43 (19%) reported drawing something they had not shared previously with anyone else. 128 (57%) of participants reported difficulty drawing. There was no correlation with years of training. 23 (79%) of M4s reported difficulty drawing compared to 49 (53%) of M3s and 15 (41%) of PGY-1.

Significance of study: The course had high satisfaction and successfully promoted reflection among students. More years of training does not seem to be associated with suppression of artistic skill. Additionally, there is need for structured debriefing of stressors in medical school.

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iOP2 Library and Instructional Design Methods to Improve Student Information Seeking Skills in Self-Directed Learning

Elizabeth Suelzer, MLIS, MCW Libraries; Johnathon Neist, MLIS, MCW

Presenter Biosketch: Elizabeth Suelzer is the User Education & Reference Librarian at the MCW Libraries and she is a part of the Self-Directed Learning Work Group at MCW. Her professional interests include website design, evidence based medicine, citation management and trends in access to information.

Problem Statement: MCW School of Medicine's 2017-18 academic year featured new self-directed learning (SDL) activities for students in the M1 and M2 curriculum. The SDL activities require learners to conduct an independent identification, analysis and synthesis of relevant information; and appraise the credibility of their information sources. In Fall 2017, students in the M2 Cardiovascular and Renal-Respiratory classes participated in the first formal SDL projects and they received feedback from a librarian on their information seeking behavior as documented by their resource list. Upon the review of the resource lists, it became evident that students need added help in developing skills to find high quality information and to appraise their sources. There is limited time in the medical school curriculum to teach these skills, yet this is a competency that is required of all incoming residents.

Approach: Instructional designers in the Office of Educational Improvement assisted faculty in developing and administrating the SDL activities, and a librarian assessed students' submissions which included a checklist that outlined the research process and expectations of core skills, their research topic and resource lists. The librarian evaluated the resource lists and provided feedback. Areas of concern included the use of low-quality or dated resources and that questions were too vague. We felt that students need more direction in these areas, and that interactive tutorials consisting of videos and low-stakes quizzes would be the most beneficial way to provide support to students. Other institutions have taken this approach and found success. Four newly created modules are available on the topics of: forming PICO questions, keyword searching in PubMed, MeSH, and advanced searching in PubMed.

Lessons Learned: • It is often assumed that incoming medical students have the skills to find high quality information and to appraise their sources, but this is not often the case. • It is evident from the resource lists that students need personalized feedback and/or training in how to search medical databases and appraise the information. • Research shows that customized point-of-need learning objects are effective at reaching students and enhancing their research independence. • When the library and instructional design team collaborate, it can both improve student research skills as well as the design of future iterations of SDL activities.

Significance of study: These modules provide instruction in a convenient format at the time-of-need, and anyone in the MCW community can use them to enhance their information searching skills. Collaboration between the library and instructional design is important for the improvement of well-designed SDL activities.

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iOP3 Capacity Coaching for Patients who are not Difficult, but have Difficult Lives

Kathryn Havens, MD, VA/MCW Primary Care Medicine; Dr. Laura Miller, Psychiatrist, Hines VA; Kristyn Ertl, Research Assistant, Zablocki VA; Kasey Boehmer, PhD, Mayo Clinic; Hilary Ryan, MSW, Zablocki VA

Presenter Biosketch: Dr. Havens is an Associate Professor of Internal Medicine at the Medical College of Wisconsin and the past Director of Women's Health at the Milwaukee Zablocki VA. She presently serves as the Design Lead for the VA Center for Innovation Innovators Network.

Problem Statement: Background: The complexity of the work involved in managing multiple chronic health conditions affects both patients and the clinical teams that care for them. When patients accumulate too much work from healthcare and life to the point it overwhelms their capacity to manage everything, patients often adhere to life and are labeled non-adherent by healthcare. Clinical teams are not currently trained to discuss the work of being a patient and to assess patient capacity, nor are they designed to coordinate care in a way that is sensitive these issues, and reduces the likelihood that a patient's capacity will be exceeded. To overcome this problem, we developed Capacity Coaching, a novel healthcare delivery model.

Approach: Capacity Coaching was developed using the Cumulative Complexity Model, a conceptual model to understand the work of patients with chronic conditions and their capacity to handle that work, and the Theory of Patient Capacity, which describes how capacity can be supported and grown. The goal was to coordinate the care team around the patients' values, preferences, and context. Two VA Medical Centers formed teams within their women's health clinics to put the Capacity Coaching model into practice. Team members were trained during a one-day workshop. Interested patients met with the peer mentor capacity coach. A short summary of her unique story, current treatment burdens, sources of and problems with capacity were identified. Suggested actions were co-created with the patient and reported to the medical team where the patient's needs were supported.

Lessons Learned: The Capacity Coaching model of care has proven feasible, despite the need to train a care team and coordinate them around a new vision of kind and careful healthcare. This model should be evaluated more broadly to understand its efficacy in improving patient quality of life, initiating culture change within a care team, and producing measurable changes in health outcomes and cost savings. Both pilot sites measured positive change in decreasing health burden and increasing patient capacity. However, the Hines site using the peer mentor was measurably more successful than the Zablocki site using a known social worker who had prior relationships with the patients.

Significance of study: Capacity coaching works for women having difficulty meeting health demands. Our medical teams call these women non-compliant. They are not difficult patients but rather women with difficult lives. This program is a multi-disciplinary approach to improve the care of women.

iOP4 Faculty Perceptions of a Structured Mentoring Committee for Early-Career Faculty in the Department of Surgery

Philip N. Redlich, MD, PhD, MCW, Department of Surgery, Clement J. Zablocki VA Medical Center; Tracy Wang, MD, MPH, MCW; Terri deRoon-Cassini, PhD, MCW; Robert Treat, PhD, MCW; Marilyn Zarka, MBA, MCW; Patricia Morales, MCW; Michael Zimmerman, MD, MCW; Kellie Brown, MD, MCW, Clement J. Zablocki VA Medical Center; Travis Webb, MD, MHPE, MCW; Gwen Lomberk, PhD, MCW; Ryan Spellecy, PhD, MCW; Brian Lewis, MD, MCW, Clement J. Zablocki VA Medical Center; Mary Otterson, MD, MS, MCW, Clement J. Zablocki VA Medical Center; David Gourlay, MD, MCW; Douglas Evans, MD, MCW

Presenter Biosketch: Dr. Redlich serves as the Division Manager for Surgical Care at the VA. He serves as the Chair of the Department of Surgery Mentoring Committee. His past roles have most recently included Associate Dean for Curriculum and Chief of the Division of Education in the Department of Surgery.

Problem Statement: Faculty are the most important asset of academic departments that must provide guidance, resources, peer support, and professional development opportunities supporting academic success. The cornerstone of success rests with effective faculty mentoring. Multiple studies demonstrate the importance of such mentoring, yet only half of surgical departments have mentoring programs, with most being informal. Our Department of Surgery sought to enhance its mentoring program in 2016 by establishing a formal Mentoring Committee to supplement support provided by the Chair and Division Chiefs. The Committee has broad representation with 11 senior faculty members from 8 Divisions and one member from another MCW department. The goal of this study was to gauge the perceptions of mentoring, in general, by junior faculty and assess the perceived value of the Mentoring Committee meetings through surveys.

Approach: The initiation of Committee meetings was well communicated to the faculty through announcements, presentations and email invitations. Concomitant with its launch in 2016, a questionnaire was sent to all assist. and assoc. professors surveying demographics, perceived components of mentoring, and past mentoring experiences. Asst. professors beyond their first year (BFY) (9) at MCW met with the Committee in the fall and all newly hired (NH) assist. professors (13) met in the spring. The Committee reviewed faculty's current and planned clinical, academic and professional activities while providing feedback, guidance, and support in a 45-60-minute session. Detailed minutes were provided within 2-3 weeks along with a post-meeting survey completed by all faculty who met with the Committee, and asking about demographics, components of the meeting that supported success, and seeking comments.

Lessons Learned: The initial survey was returned by 14/32 (response rate=44%). Highest rated items defining mentoring were: professional development advice (4.6), support in societies (4.5), assisting with research (4.3), and support of scholarly projects (4.1) (Likert scale, 5=most important). Males rated providing advice on work/life balance the lowest (n=7; 2.6) versus a higher rating by females (3.6) (p=ns; Mann-Whitney U-test). The highest rated items identified in the post-meeting survey included: information was valuable (4.7), time allotted was sufficient (4.6), setting was conducive for the meeting (4.5), post-meeting communications were helpful (4.5), and expectations were met (4.4) (5=strongly agree). Pre-meeting materials being helpful was rated higher by NH faculty (4.4 vs 3.4, p=0.004) whereas the meeting time being sufficient was rated higher by BFY faculty (4.9 vs 4.5, p=0.45).

Significance of study: Our structured Mentoring Committee was well received and supported in our Department. Our mentoring process generated interest across MCW in multiple departments. Guidance and support of early career faculty can be achieved through structured mentoring to support faculty academic success.

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iOP5 Effect of faculty feedback on student submitted written history and physical examination note

Bipin Thapa, MD, MS, MCW Department of Medicine; Martin Muntz, MD, MCW; Robert Treat, PhD, MCW; Kristina Kaljo, PhD, MCW; Paul Bergl, MD, MCW; Yogita Segon, MD, MCW; Kerrie Quirk, MEd, MCW

Presenter Biosketch: Bipin Thapa is an Associate Professor of Medicine and Assistant Dean for Clinical Curriculum at Medical College of Wisconsin. His interest is in curriculum development, implementation and monitoring. Innovation in medical education and medical education research are his drives.

Problem Statement: Written notes on history and physical exam (H&Ps) are key components for patient care and for medical education. Accreditation bodies have emphasized regular feedback for students' H&Ps, however quality feedback has often been inconsistent1,2 and subjective4,5 across clerkships. Busy clinical practice, patient acuity, supervisor variability, and lack of a uniform tool have been perceived barriers on providing effective feedback on H&Ps.

Approach: In 2015/16, the M-3 Internal Medicine clerkship implemented a structured method to review, score, and provide written H&P feedback to students. Six Department of Medicine faculty educational leaders reviewed students' H&Ps at two- and four-week intervals, scored the note using a rubric with maximum score of 70, and provided written feedback at each interval. In the subsequent two years 123 of 405 (30%) notes were reviewed. Pre-post percentage scores across four-month clinical blocks were analyzed with repeated measures analysis of variance using IBM® SPSS® 24.0. Cohen's d calculated for effect sizes. Using grounded theory, the constant comparative analytic method was applied to the written H&P feedback to determine consistency and depth and breadth among faculty reviewers. Overarching themes were identified.

Lessons Learned: With feedback there was improvement in pre-post mean scores in 2015/16 ($d=0.76$, p0.001) and 2016/17 ($d=0.54$, $p<0.001$). Scores significantly increase from block 1 to block 2 ($d=1.5$, $p<0.001$) or block 3 ($d=1.5$, $p<0.002$), but not from block 2 to 3 ($d=0.08$, $p<1.000$). It is unclear whether this improvement was because of feedback or natural progression of students with time and experience. Also, faculty reported time commitment of 30-45 minutes per H&P as limiting factor. "Feeding forward"3 comments and simple corrective comments emerged as the two common strategies used to provide feedback. Feeding forward comments included seeking clarification and/or prompting critical reflection. Simple corrective comments included passive statements or simple, "this is good work" statements. Notably, faculty reviewers rarely used negative or discouraging comments to address evident gaps in knowledge.

Significance of study: Providing thoughtful, written feedback to student submitted notes can establish a more coordinated effort to identify strengths and weaknesses in clinical reasoning, and more importantly, provide strategies for improvement. Given the time commitment of this process and importance of prompt feedback,

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ORAL PRESENTATION ABSTRACTS - RESEARCH

Research Abstracts
A **research** abstract is a report on a completed empirical investigation that contributes to medical education research and practice, which can include pilot projects, exploratory studies, or even components of larger projects. A research abstract summarizes the major aspects of a project in a prescribed sequence that includes the overall purpose of the study, its basic design, major findings as a result of the analysis, and a summary of interpretations and conclusions.

Indicates an abstract related to the conference theme of competency-based education

rOP1 Rising M-1 Medical Student Anxiety: Six Years Later with a New Curriculum and Generation of Students

Robert Treat, PhD, MCW Office of Academic Affairs; Diane Brown, MS, MCW; Koenraad De Roo, MCW; William J. Hueston, MD, MCW; Amy Prunuske, PhD, MCW; Kristina Kaljo, PhD, MCW; Jennifer Janowitz MS, MCW; Dawn Bragg, PhD, MCW

Presenter Biosketch: Robert Treat, PhD is an Assistant Professor of Emergency Medicine and the Director of Measurement and Evaluation in the Office of Academic Affairs at the Medical College of Wisconsin (MCW).

Background: Medical student anxiety has been linked to poor performance[1], ill-health[2], and gives no indication of abating. In 2010, our institution measured trait anxiety for M-1 medical students across the academic year and determined there was a significant increase between the fall and spring semesters. In 2016, after the completion of a new integrative curriculum and the establishment of two new three-year medical degree programs, the same instrument measured the longitudinal effects of trait anxiety for a new generation of medical students. The purpose of this study is to analyze M-1 medical student trait anxiety across a six-year span and determine its relationship to trait affect and burnout.

Method: In 2010/11, 62 of our 204 M-1 medical students voluntarily completed the Trait Anxiety Inventory for Adults (1=almost never, 4=almost always). In 2016/17, 80 of 260 M-1 medical students completed the anxiety instrument, Positive and Negative Affect Schedule (1=very slightly or not at all, 5=extremely), and the Maslach Burnout Student Scale (1=never, 4= few times per month, 7=every day). Repeated measures analysis of variance and Cohen's d compared differences in mean scores. Pearson (r) correlations and stepwise multivariate linear regressions used for predicting burnout from trait anxiety. IBM® SPSS® 24.0 generated statistical analysis. This research was approved by the institution's IRB.

Results: In 2010/11, M-1 medical student trait anxiety (TA) scores significantly ($p<0.041$) increased from fall (mean (sd) = 34.9 (9.3)) to spring (36.5 (10.6)) semesters. In 2016/17, M-1 medical student TA scores increased from fall (mean (sd) = 38.2 (8.5)) to spring (40.3 (7.2)) semesters. TA scores significantly increased across six years (Cohen's d=.36, $p<0.001$). Emotional exhaustion (alpha=.90) was predicted ($R^2=0.39$, $p<0.001$) by the TA items of not being calm (beta=.3), unable to overcome difficulties (.3), and not being rested (.3). Cynicism (alpha=.90) was predicted ($R^2=0.37$, $p<0.001$) by the TA items of not being satisfied (beta=.3), unable to overcome difficulties (.3), and not being happy (.3).

Conclusions: Medical student trait anxiety increased across the academic year and the six-year span in which curricular changes occurred. The wide bandwidth of trait affect correlations with trait anxiety makes it challenging to understand the emotional multiplex of anxiety and its ability to predict burnout.

Significance: Medical student anxiety continues to rise across the years and will predict student burnout.

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rOP2 Global Clinical Performance Assessment versus Checklist Competency-Based Assessment in Determining a Clinical Performance Score

Travis Webb, MD, MHPE, MCW Department of Surgery; Jason Crowley MS, MCW; Robert Treat PhD, MCW; Dominic Fee MD, MCW; Bipin Thapa MD, MCW; Marika Wrzosek MD, MCW; Brian Lewis MD, MCW; Kristina Kaljo, PhD, MCW; Jason Burns, MD, MCW; Sara Lauck, MD, MCW; Stylianos Voulgarelis, MD, MCW; Rahmouna Farez, MD, MCW; Patrick Foy, MD, MCW; Joshua Noe, MD, MCW

Presenter Biosketch: Dr. Webb is the Associate Dean for Curriculum and has been an active leader in the MCW educational mission since his faculty appointment in 2005. He has served as a required M3 clerkship co-director and Associate Program Director for the General Surgery residency program.

Background: The transition of medical education towards competency-based assessment (CBA), while continuing to provide traditional, end-of-course student grades is a psychometric challenge to longitudinal formative CBA with respect to concurrent and predictive validity. Third-year clerkships currently assess student performance with both a checklist CBA and a global clinical performance assessment (GCPA), but primarily utilize the CBA when calculating final grades. This study analyzes the relationship between checklist CBA scores and GCPAs in required clerkships to determine whether grades can be calculated using the GCPA.

Method: Third-Year Clerkship Directors selected questions applicable to their clerkship from 50 CBA items and a global assessment item regarding overall clinical performance. Excluding the GCPA item, the mean number of items across eight clerkships was 16; ranging from nine items in Anesthesiology to 23 in Internal Medicine. Medical student assessments were completed by preceptors using MCW's Student Information System for each required clerkship for the 2016-2017 academic year. Multivariate linear regression analysis of GCPA on the individual CBA items was generated with IBM® SPSS® 24.0.

Results: 7330 student clinical performance assessments submitted by 921 Preceptors regarding 311 students were analyzed. Regression analysis resulted in a range of significant ($p<0.050$) R^2 values for all clerkships, (R^2=0.40-0.72). The CBA item "Gathers appropriate amount of data" was a significant predictor in four clerkships. "Performs skills and procedures as required by clerkship," "Demonstrates effort to meet expectations," and "Develops differential diagnosis supported by data" were significant predictors in two clerkships. Within all clerkships, every CBA item significantly correlated with the GCPA. Individual Pearson correlation coefficients ranged from r=0.33 to 0.73, (all $p<0.050$).

Conclusions: GCPA performs well as a substitute to the individual CPA items. Students' general clinical ability is expected to increase over time; the variability in the GCPA that is not explained by the model of individual items may be attributable to this variance/increase in ability across time.

Significance: Global clinical performance assessment ratings correlate with current checklist CBA scores and may be solely used as a clinical performance assessment score to calculate grades.

rOP3 Pediatric Resident Self-Confidence, Not Past Experience, is Correlated with Their Ability to Perform Bag-Mask Ventilation and Endotracheal Intubation

Joseph Resch, MD, MS, MCWAH - Pediatric Residency; Abby Smolcich, MD, MCWAH-CHW; Amanda Rogers, MD, MCWAH-CHW; Robert Treat, PhD, MCW

Presenter Biosketch: Joey is originally from southeast Wisconsin, however obtained his various degrees elsewhere, including a Medical degree at Wright State University before returning to Milwaukee. Has a passion for teaching and figuring out how medical education will mix into future career endeavors..

Background: The ACGME Pediatric Residency Program Requirements that residents must demonstrate competence in bag-mask ventilation and neonatal endotracheal intubation at completion of residency. Many programs use number of procedures logged to demonstrate ability to perform independently. Many studies about resident procedure skills focus on ways to improve resident self-confidence in their ability to perform those skills. Limited information is reported on the relationship between residents' prior experience performing procedures, their self-confidence in their procedural skills, and their actual procedural competence.

Method: Residents were asked to quantify the number of times they had performed BMV and neonatal intubation and rate their self-confidence in their ability to perform these procedures on a 6-item survey using a five-point Likert scale (5=strongly agree). Their procedures were assessed by a trained observer using a standardized simulation scenario and task trainers and a 53-item validated airway management checklist. The Pearson correlation coefficient between prior experience, self-confidence, and procedural competence was calculated.

Results: Twenty-four first year pediatric residents completed the assessment. There was a strong correlation between self-reported confidence and procedural competence ($r=0.7$, $p<0.001$). No significant correlation ($r\leq.4$, $p<0.050$) was reported between prior experience and procedural competence.

Conclusions: Resident self-confidence in their BMV and neonatal intubation skills may be a more powerful indicative measure of their procedural competence than their prior experience performing these skills. Some noted limitations of this include recall bias of residents reporting prior experience, the overall power of the study at this point of data collection, as well as that this data was gathered in the setting of a strictly simulated environment.

Significance: Emphasizes the importance of developing procedural experiences that target individual self-confidence rather than sheer numbers of attempted procedures to maximize resident competence in BMV and ETT.

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rOP4 The Adaptive Learner: An Analysis of Differing Perspectives Whereby Medical Students Tailor Resources to Advance Learning

Crystal Graff, BS, MCW - Student; Kristina Kaljo, PhD, MCW; Robert Treat, PhD, MCW; Kathryn Dielentheis, MD, MCW

Presenter Biosketch: I am currently a second-year medical student at the Milwaukee campus of the Medical College of Wisconsin. I am part of the Clinician Educator Pathway program at MCW. Previously I attended the University of Wisconsin-Madison where I obtained degrees in Biology and Kinesiology.

Background: Medical schools have historically utilized instructor-centered lectures to teach medical students the basic sciences (1). Recently, students have become inundated with new, high-quality resources to enhance lecture-based content to prepare for institutional and national board examinations (2). Millennial medical students allocate an enormous amount of time and money seeking and evaluating these educational resources that are not readily available within the program (3). The purpose of this study is to analyze perceptions between students and faculty regarding supplemental educational resources and the efficacy of lecture-based teaching.

Method: In August 2017, a 13-item survey was distributed to first-, second- and third-year students, of which 155 of 711 (23%) students responded. An 11-item survey was distributed to basic science teaching faculty, of which 81 of 376 (22%) faculty responded. Survey items used categorical and 10-point scales (10=high) and open-ended text-response. Mean scores compared with independent t-tests and Cohen's d effect sizes. Pearson (r) and Spearman rho correlations used for relational analysis. IBM® SPSS® 24.0 used for statistical analysis, NVivo 11 used for qualitative analysis. Study is IRB approved.

Results: Students reported utilizing a significantly higher number of supplemental educational resources (mean(sd)=5.9(2.0)) than faculty (4.7(2.1)) perceived (Cohen's d=0.6, $p<0.001$). Faculty's perception of meeting students' learning needs was rated significantly higher (7.3(1.3)) than students (5.9(2.0)) (Cohen's d=1.0, $p<0.001$). There was a significant negative correlation between meeting learning needs and time spent outside of lecture seeking supplemental learning resources (rho=-0.4, $p<0.001$). Several students reported being at a "disadvantage" because they could not afford some of the commonly used ancillary resources.

Conclusions: Student and faculty perception's regarding student learning needs were significantly different. Students are spending money on additional educational resources available outside of the formal curriculum to supplement their learning. Additional financial burdens are placed on students as they personally finance these supplemental resources to advance learning. It is prudent for faculty and medical schools to be informed and provide access to essential educational tools to support the increasingly diverse student population (4).

Significance: Students use external resources that are under-appreciated by instructors and this puts some students at an economic disadvantage. Schools should assist students to locate and fund these resources.

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rOP5 Analyzing the Effect on Faculty Performance after Receiving Custom Student Feedback Reports

Greg Kaupla, BBA, MCW Academic Affairs - Office of Measurement and Evaluation; Robert Treat, PhD, MCW; Dawn Bragg, PhD, University of South Dakota; Jose Franco, MD, MCW

Presenter Biosketch: Greg Kaupla is a Database Analyst II in Academic Affairs - Measurement and Evaluation where he works to compile, analyze and report data for numerous committees, student groups and other audiences. He also has experience in market research and survey design/ programming for groups throughout MCW.

Background: Medical school faculty at our institution have traditionally been given results to student evaluations via an online portal which included basic descriptive statistics (means, standard deviations, sample sizes). In 2015-16, customized faculty reports were created that compared their results to their peers within and across courses which would motivate them to improve performance.[1] The purpose of this study is to analyze medical faculty performance before and after they received customized student feedback reports.

Method: During academic years 2014-15 to 2016-17 first- and second-year medical students in basic science courses evaluated the performance of faculty, lecturers and small group facilitators that taught in these courses. The evaluation required students to rate on a four-point Likert scale (1=strongly disagree/4=strongly agree) how clear/organized the material was, whether major concepts were emphasized, whether readings/handouts supported objectives, how the presenter engaged students, and use of technology to benefit learning.

Results: Faculty in the lower decile of the overall distribution (average of the five items) reported statistically significant (independent t-test, $p \leq .050$) improvements after receiving customized reports in being clear/organized in presenting material (Cohen's d=.23), readings/handouts supported objectives (d=.22), actively engaging students in classroom (d=.39), and implementing classroom technology to benefit learning (d=.28). A strong correlation ($r=0.8$, $p<0.001$) was reported between emphasizing major concepts and keeping students actively engaged in the classroom. The inter-item reliability, measured with Cronbach's alpha, was 0.95.

Conclusions: These findings provide statistical evidence that faculty improve after receiving customized student feedback reports. The largest improvement came in presenters actively engaging students in the classroom.

Significance: Customized feedback reports helped faculty improve in being clear/organized in presenting material, improved readings/handouts, actively engaging students and implementing classroom technology.

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ORAL PRESENTATION ABSTRACTS - PECHA KUCHA

Pecha Kucha Abstracts
PechaKucha™ or "chit-chat" is a presentation style in which 20 slides are shown for 20 seconds each (6 minutes and 40 seconds in total), which keeps the presentations concise and fast-paced. PechaKucha™ Night was created in February 2003 by Astrid Klein and Mark Dytham of Tokyo's Klein-Dytham Architecture to allow young designers to meet, show their work, and exchange ideas. The use of PechaKucha™ is primarily in the fields of design, architecture, photography, art, and creative fields, but also from academia. To gain a wider audience for your PechaKucha™ presentation, you should sign up and submit your presentation to: http://www.pechakucha.org/

Indicates an abstract related to the conference theme of competency-based education

pOP1 Improving Resilience in Medical Students: Starting the Puzzle with Emotional Intelligence

Koenraad De Roo, MCW Academic Affairs; Robert Treat, PhD, MCW; Diane Brown, MS, MCW; Amy Prunuske, PhD, MCW; Kristina Kaljo, PhD, MCW; William Hueston, MD, MCW

Presenter Biosketch: As MCW's Student Health and Wellness Coordinator, Koenraad De Roo focuses his work on the physical, mental, emotional, spiritual, social, and vocational wellness of MCW students, including serving the specific needs of sub-populations, such as the military student population at MCW.

Pecha Kucha: In a previous study, we established that resilience in medical students reduces the effect of trait anxiety on the happiness of medical students (De Roo, et al., 2017). This spurs an important follow-up question: how can we improve the resilience of our medical students? There is a significant relationship between emotional intelligence and resilience in female college students (Jayalakshmi & Magdalin, 2015), and a predictive relationship between emotional intelligence and resilience has been reported (Bahram, 2007; Armstrong, Galligan, & Critchley, 2011). One hundred and twenty-four M1 and M2 students from three MCW campuses completed two self-reported electronic surveys: a 30-item Trait Emotional Intelligence scale and the 25-item RS-25 Resilience Scale. Spearman correlations reported significant relations in 108 out of 750 pairs (14.4%), as well as the factors of emotional intelligence and resilience. Our regression model yielded only one single element of emotional intelligence, the ability to deal with stress, to be predictive of resilience. Going into this study, we knew that what makes up a person's level of resilience is complex and involves many conceptual elements. While the literature indicates a predictive relationship between emotional intelligence and resilience, this is only a small part of the puzzle. Further research into other factors that come into play is needed to paint a broader picture of potential interventions and proactive approaches to increase the resilience in medical students. However, knowing that the ability to handle stress is one of the factors gives hope to the thought that many predictive factors of resilience may be trainable skills we can teach students in our efforts to equip them better to withstand the rigors of medical training.

References: Armstrong, A. R., Galligan, R. F., & Critchley, C. R. (2011). Emotional Intelligence and Psychological Resilience to Negative Life Events. Personality and Individual Differences, 51(3), 331-336. Bahram, J. (2007). The Mediating Role of Resilience in the Relationship Between General and Emotional Intelligence and Life Satisfaction. Contemporary Psychology, 2(2), 3-12. De Roo, K., Treat, R., Brown, D., Kaljo, K., Prunuske, A., Janowitz, J., Bragg, D., Hueston, W. (2017, April). The Impact of Medical Student Resilience on the Relationship of Trait Anxiety with Happiness and Life Satisfaction. Retrieved from ResearchGate: https://www.researchgate.net/publication/319331347_The_Impact_of_Medical_Student_Resilience_on_the_Relationship_of_Trait_Anxiety_with_Happiness_and_Life_Satisfaction Jayalakshmi, V., Magdalin, S. (2015). Emotional Intelligence, Resilience and Mental Health of Women College Students. Journal of Psychological Research, 10(2), 401-408.

pOP2 Develop This! A Pilot Self-Directed Learning Activity for First Year Medical Students

Marika Wrzosek, MD, MCW Department of Psychiatry and Behavioral Medicine

Presenter Biosketch: Dr. Wrzosek continues her second year on faculty at MCW, where she is currently the Director of Medical Student Education for the Department of Psychiatry. She maintains a child and adolescent psychiatry practice at CHW and continues national leadership in the Association for Academic Psychiatry.

Pecha Kucha: Teaching future physicians is a delicate balancing act - with enough space to foster their independent learning but enough structure to ensure they progress along critical competencies and learn to take care of people. Given the emphasis on lifelong learning, educators are challenged to stay relevant to today's students who often seek online sources of knowledge. At the Medical College of Wisconsin, a group of 264 first year medical students participated in a mandatory "self-directed learning" (SDL) activity required for their assessment in a course entitled "Foundations of Human Behavior" (FHB). This PechaKucha delineates the details of this pilot SDL project and shares the trials and tribulations of an ultimately successful learning activity. By weaving in self-assessment, analysis and synthesis of relevant information, and appraisal of sources, this activity supplemented what the required textbook for the course only superficially covered. Requiring students to share information via the completion of a group project as part of the SDL activity solidifies the collaborative nature of modern medicine from the earliest stages of medical school while also subtly paying tribute to peer learning and teaching. Lastly, feedback from the instructor on the independent projects allows for specific input on students' critical thinking skills. Incorporating all components of the Liaison Committee on Medical Education (LCME) SDL standards, this activity was intentionally designed to have students stretch into their slightly uncomfortable independent learning zone by merging with what they naturally want to know - how something they learn in class is clinically relevant. While originally taught to 264 first year medical students, this activity can be easily adapted to wide ranges of topics and students at different stages of learning. This PechaKucha shares this pilot project with fellow scholars and educators.

References: LCME. Function and Structure of a Medical School. March 2017. Accessed online at http://lcme.org/publications/ Feb 27, 2018.

pOP3 A Year in the Life of an Interprofessional Educator Coordinator: Lessons Learned about Training Future Collaborators on the Healthcare Team

Jordan Cannon, MS, MCW Academic Affairs

Presenter Biosketch: Jordan Cannon is the Interprofessional Education Coordinator at the Medical College of Wisconsin and Marquette University. She collaborates with faculty to develop and implement intentional interprofessional programming for students pursuing various degrees in the health sciences.

Pecha Kucha: Driven by accreditation requirements and the desire to produce the most competent young professionals in various health science fields, the conversation surrounding Interprofessional Education (IPE) has become prevalent among health science educators. Many new IPE educators are seeking the "gold standard" for the most effective and efficient implementation of IPE. However, given the unique curricular structure of each institution, success at one school may not yield the same level of success at another school. Regardless, there are best practices to be shared which will help developing teams overcome frequently occurring obstacles. I often say the most important step in IPE is to simply try something for the first time, but best practices are available to guide the process! Meeting time and space are frequently cited barriers to the implementation of IPE in health science curricula. After one year of coordinating IPE efforts between two private academic institutions (one medical school and one research university), I would suggest that the barriers extend much deeper than surface logistics. The development and implementation of genuine IPE activities that truly benefit health science students, requires planning teams to maintain a focused intentionality through the process. This includes continuous checks for alignment with the Interprofessional Education Collaborative's four core competencies, assurance that various student groups are receiving optimal benefit from the proposed program, and appropriate faculty engagement, among others. From initial planning meetings to final assessments, I have had several "a-ha" moments in my first year as an IPE Coordinator shared across two institutions. In sharing my experience and lessons learned with the audience, I hope to provide some insight into best practice to guide you and your team in working towards training the future IPE collaborators on healthcare teams.

pOP4 Impact of Basic Science and Clinical Experience Sequence on Medical Student Performance

Amy Prunuske, PhD, MCW-Central Wisconsin; Robert Treat, PhD, MCW; Jacob Prunuske, MD, MCW-Central Wisconsin

Presenter Biosketch: Amy Prunuske has served as faculty at two regional medical campus and is involved in evaluating outcomes relevant to regional campuses. Her current research interests include citizen science in Lyme disease and engaging medical students in community engaged research.

Pecha Kucha: INTRODUCTION Traditional medical school curricula of two years basic science followed by two years clinical science curricula are being redistributed by curricula with earlier clinical experiences, but there are limited studies that examine the benefits and challenges of this resequencing. The three-year medical program at the Medical College of Wisconsin-Central Wisconsin (MCW-CW) campus provides a rare opportunity to compare student performance with the more traditional four-year curriculum of Milwaukee (MCW-MKE). The purpose of this study is to analyze clinical clerkship experiences begun prior to the second-year basic science curriculum at MCW-CW and after the basic science curriculum at MCW-MKE. METHODS MCW-CW students complete a 10-week integrated clerkship (CWIC1) after year 1 and are summatively evaluated with four Objective Structured Clinical Examinations (OSCE). These same OSCEs are completed by MCW-MKE students during their third-year internal medicine clerkship (after completion of the full basic sciences curriculum). The impact of the year 2 basic science curriculum on clinical performance was assessed by comparing mean OSCE scores of MCW-CW students (N=25) to MCW-MKE students (N=35) using independent t-tests and Cohen's d effect sizes with SPSS 24.0. RESULTS Mean OSCE scores were significantly higher for MCW-CW students for the Abdominal Pain case (Cohen's d=0.68, $p<0.011$) and Rectal Bleeding case (d=0.53, $p<0.049$), but significantly higher for MCW-MKE students on the Difficulty Breathing case (d=0.71, $p<0.007$). No significant difference existed for the Chest Pain case (d=0.30, $p<0.247$). Analysis of year 2 basic science cumulative percentage scores reported no statistically significant differences ($p<.050$) between campuses. CONCLUSION Completion of second-year pathophysiology coursework was not necessary for students to perform well on clinical OSCEs suggesting that students are capable of beginning clerkships experiences following their first year.

pOP5 Coming Soon Near You! Kern Institute's Teaching Academy

Alexandra Harrington, MD, MT(ASCP), MCW Pathology Department, Kern Institute; Beth Krippendorf, PhD, MCW; Bipin Thapa, MD, MCW; Diane Wilke-Zemanovic, MS, MCW; Kerrie Quirk, MEd, MCW; Jose Franco, MD; Cheryl Maurana, PhD, MCW; Bruce H. Campbell, MD, FACS, MCW; Robert Treat, PhD, MCW; Kristina Kaljo, PhD, MCW

Presenter Biosketch: Dr. Alexandra Harrington is an Associate Professor in the Department of Pathology and the Kern Institute. She received her medical degree from the Medical College of Wisconsin and did her residency in Pathology and fellowship in Hematopathology at MCW.

Pecha Kucha: Medical school teaching academies have emerged to meet the needs of faculty educators, providing professional development and career advancement opportunities during a time when competing institutional priorities marginalize the importance of teaching.1 Well-established US medical educator teaching academies include the University of California-San Francisco's "Teach for UCSF" and Harvard Macy's Institute's "Program for Educators in Health Professions." Prioritizing the importance of educating our teachers, the Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education at the Medical College of Wisconsin (MCW) is creating a faculty teaching academy. We believe our academy will be unique and transformative, emphasizing competence, caring, character, resiliency/well-being, and the entrepreneurial mindset, which includes the promotion of curiosity, connections, and creating value in medical education. It was imperative to listen to the voices and perspectives of MCW faculty across all three campuses to inform the creation of our teaching academy. Results from a mixed-methods analysis of survey and focus group data informed the design of the curriculum, faculty interest in a capstone project, and ultimately the desire to be recognized as leaders in medical education. The Teaching Academy aims to: enhance the skill and satisfaction of faculty as educators, assemble a community of skilled educators to support ongoing curricular revitalization, develop the entrepreneurial mindset as a skillset, and model the importance of competence, character, caring, and resiliency/well-being in medical education. Participants will receive a certificate of completion following satisfactory completion of required coursework and a capstone project in a one-year period. This academy may serve as a model for other national medical school partners. The goal for this PechaKucha is to share the details of the Teaching Academy commencing in summer 2018.

References: 1. Shaw G. (2005). Teaching Academies: Putting the School Back in Medical School. The College of Physicians and Surgeons of Columbia University.

pOP6 Evaluating Medical Student Learning Through the "Draw It to Know It" Visual-Based Educational Software

Johnny Neist, MLIS, MCW Office of Educational Improvement; Roy Long, PhD, MCW

Presenter Biosketch: Johnny Neist is an instructional designer for MCW. He aims to connect students and faculty with the best educational resources, whether it be a scholarly research article they can't find or a digital tool that the never knew they needed.

Pecha Kucha: The 2017-18 MCW-M1 class had a variety of digital study tools at their disposal, many of them free of charge and not required. We were interested in the adoption rate and effectiveness of one of these optional web-based educational tools, Draw It To Know It (DITKI). A learning resource grant from MCW-Academic Affairs provided full optional access to the online DITKI medical modules for the 17-18 academic year. Without any M1 courses requiring the DITKI platform during Fall 2017, we were interested in how many M1 students would voluntarily use DITKI to assist their learning in the Clinical Human Anatomy, Molecules to Cells and Physiology courses. One unforeseen trend from the Fall period was the regionally-based students adopting the DITKI platform at a higher rate than the Milwaukee students. As the Spring 2018 courses began, and instructor promotion of the tool became more explicit, other learning tendencies became evident and those will be showcased in this presentation. This presentation will present some of the trends that DITKI's excellent data dashboard provides. We will demonstrate the range of basic science modules that DITKI offers, as well as the most popularly accessed modules among MCW students. We will demonstrate how students do on self-quizzing, which is available in the program. In addition, we will present how MCW users perform on block exams versus MCW non-users.

pOP7 Developing an Acute Care Course for Incoming Medical and Pharmacy Students

William Hueston, MD, MCW Department of Family and Community Medicine; Jason Liu, MD, MCW

Presenter Biosketch: Dr. Hueston is Professor of Family and Community Medicine and Senior Associate Dean for Medical Education at MCW. His interests are in medical education and health services and teaches health policy as part of the Health Systems Management and Policy Pathway.

Pecha Kucha: Background: Students who enter health professional training programs are often perceived by the public to be knowledgeable about health problems even if they have had little training in their field. Medical students, in particular, may be sought out by family and acquaintances for health care advice well beyond their level of expertise. To prepare students for such situations, we developed an 8-hour Acute Care Workshop for incoming medical and pharmacy students. Methods: 25 students were enrolled in the course on a first-come basis. The curriculum for the workshop consisted of two 4-hour morning sessions. Each session included a didactic component and a small group hands-on practicum. Participants voluntarily completed pre-workshop and post-workshop questionnaires, assessing their self-reported preparation to participate in providing various emergency and urgent care interventions. These assessments were anonymous and included no student identifiers. Self-reported preparation levels were compared pre- and post-workshop using Fisher's exact test. Results: Twenty-three participants completed the pre-workshop assessment and 22 completed the post-workshop assessment. Statistically significant increases were noted in students' self-reported comfort in assessing vital signs and initial patient status, assessing ABCs, evaluating and controlling bleeding, recognizing and stabilizing an acute fracture, and assessing and taking initial steps in a general medical emergency. No significant increase was noted for being prepared to operate an automatic defibrillator. Conclusions: A brief pre-matriculation workshop focusing on common emergencies was well received by students and appeared to improve their self-reported level of preparation in responding to common urgent and emergency medical situations.

POSTER ABSTRACTS

Innovations vs. Research Abstracts	
An **innovation** abstract is a report on a unique educational experience that has developed enough to provide valuable lessons and insight worth sharing with the medical education community. It is designed to foster scholarly dissemination of novel ideas, methods, or materials in medical education. The focus can be on curriculum, teaching, assessment, or any other aspect of medical training. An innovations abstract summarizes a problem statement, methodological approach, and lessons learned from the study.	A **research** abstract is a report on a completed empirical investigation that contributes to medical education research and practice, which can include pilot projects, exploratory studies, or even components of larger projects. A research abstract summarizes the major aspects of a project in a prescribed sequence that includes the overall purpose of the study, its basic design, major findings as a result of the analysis, and a summary of interpretations and conclusions.

Indicates an abstract related to the conference theme of competency-based education

iP1 Chronic Pain in Anesthesia Practice: A Flipped Classroom & Case-Based Educational Initiative

Gwynne Kirchen, MD, MCW Department of Anesthesiology; Christopher Howson, MD, BayCare Clinic, Green Bay WI

Presenter Biosketch: Dr. Kirchen received her medical degree at The Ohio State University. She completed an anesthesiology residency and pain medicine fellowship at The Medical College of Wisconsin and remains on faculty as Assistant Professor within the chronic pain division of the Department of Anesthesiology.

Problem Statement: Modern anesthesiologists require sound knowledge of chronic pain for success with board certification and future practice as perioperative consultants. Although chronic pain is a very common comorbidity seen in patient care and residency training in both operating rooms and subspecialty pain clinics, there is often minimal educational time devoted to this important topic. Within the Department of Anesthesiology, we have introduced a flipped classroom educational initiative with a case based approach to address this knowledge and clinical practice deficit. This technique is described in the literature with increasing frequency and popularity. Nonetheless, there is no description of this learning technique in the literature for chronic pain education. We felt this learning style was well suited to address the complex biopsychosocial assessment and treatment of pain pathologies.

Approach: Four chronic pain clinical cases were developed to address common pain diagnoses including low back pain and radiculopathy, widespread pain, cancer pain, visceral pain and sympathetically-mediated pain. The discussions subsequently expand to differential diagnosis, evaluation, physical exam and management options with a multidisciplinary approach including adjunct medication, physical therapy, intervention, neuromodulation and surgery. We hypothesized that dedicated didactics using this educational approach would increase knowledge and competency regarding common pain disorders leading to improved clinical care, knowledge assessment scores and resident satisfaction. These clinical cases were assigned weekly to house staff on the chronic pain rotation. Fellows were also assigned to serve as expert proctors of the session to contribute further depth of knowledge.

Lessons Learned: Pre and post-implementation raw scores on a knowledge test were analyzed for statistical significance using a two-tailed unpaired t-test. While pre-test scores between the two groups were not statistically different, the post-implementation group performed significantly better by 1.72 points (out of 13) on average. Survey results were analyzed for statistical significance using a two-tailed Mann Whitney U test. Significant differences were reached for relevance, quality, satisfaction, comparison with other rotations and confidence in answering test questions. The largest increase in the resident survey was in the perception of relevance of material to the expertise of anesthesiology. Overall, integration of a flipped classroom and case based educational initiative was effective in improving the performance of anesthesiology residents in knowledge assessment and satisfaction measures.

Significance of study: In light of the pain and opioid epidemic, chronic pain topics are clearly important for all physicians. Our work supports the use of this educational technique for resident education for chronic pain and could be expanded beyond anesthesiology training to other subspecialties and medical education.

References: Chen F, Lui AM, Martinelli SM. A systematic review of the effectiveness of flipped classrooms in medical education. Med Educ 2017;51 (6):585–597 King A et al. Curated Collection for Educators: Five Key Papers about the Flipped Classroom Methodology. Cureus 2017; Oct 9 (10) Tang F, Chen C, Zhu Y, et al. Comparison between flipped classroom and lecture-based classroom in ophthalmology clerkship. Medical Education Online. 2017;22(1):1395679.

iP2 Increasing Pharmacy Students' Knowledge of Medical Interpretation: Early Collaboration with Medical Interpreter Students

Sue Korek, MAED, MCW School of Pharmacy; Karen MacKinnon, BPharm, RPh, MCW School of Pharmacy; Rodney Ramos, Sr., BS, Milwaukee Area Technical College

Presenter Biosketch: Sue Korek is a Program Manager for Interprofessional Education (IPE) at the Medical College of Wisconsin - School of Pharmacy. Ms. Korek is responsible for leading the development of the IPE program as well as managing the selection and implementation of the IPE sessions.

Problem Statement: Due to limited availability of medical interpreting services at pharmacies, some pharmacists treating limited English proficient (LEP) patients may rely on inappropriate interpretation means (e.g. a patient's family member) rather than a qualified medical interpreter.

Approach: The Medical College of Wisconsin (MCW) School of Pharmacy and Milwaukee Area Technical College (MATC) Medical Interpreter Program designed and developed an innovative interprofessional educational (IPE) session where 51 first-year pharmacy students collaborated with 20 first-year medical interpreter students in a simulation. First, students learned the roles and responsibilities of a medical interpreter and pharmacy. Next, students learned the rules of providing limited English proficient patients access to a qualified interpreter. The simulation centered around a pharmacist obtaining a medication history of a limited English proficient patient and making use of a medical interpreter for interpretation. Afterwards, all students participated in a rich debrief reflecting on the session.

Lessons Learned: As a result of this activity, we learned that the pharmacy students highly valued the opportunity to work with the medical interpreter students early in their education verses after they graduated. Many pharmacy students were unaware that a pharmacist or healthcare worker needed to refrain from using an English-speaking family member. Pharmacy and medical interpreter students both commented they enjoyed the activity and wanted to repeat the simulation again during the year. Another lesson learned during the activity is pharmacy students freely asked medical interpreter students for feedback on their simulation and desired input on how they could improve their performance. Both pharmacy and medical interpreter students commented that there was a greater respect gained after the activity toward the other profession following the activity.

Significance of study: Juckett (2014) states interpreters increase patient satisfaction and improve adherence1. The activity increases the probability of future pharmacists seeing the value of using a medical interpreter (verses a family member), making use of an interpreter and therefore increasing patient satisfaction.

References: 1 (October, 2014). Juckett, G. & Unger, K. Appropriate Use of Medical Interpreters. American Family Physician, 60, 7. Retrieved from https://www.aafp.org/afp/2014/1001/p476.pdf on February 17, 2018.

iP3 Entrustable Professional Activities (EPAs): Mapping Performance to Milestones

Bethany A. Auble, MD, MEd, MCW; Amanda Rogers, MD, MCW; Michael Weisgerber, MD, MS, MCW; Kris Saudek, MD, MCW; Robert Treat, PhD, MCW; Abigail Schuh, MD, MCW; Danita Hahn, MD, MCW

Presenter Biosketch: Bethany Auble is an Assistant Professor of Pediatrics in the division of Pediatric Endocrinology. She is also one of the Associate Program Directors for the Pediatric Residency Program at the Medical College of Wisconsin and the Fellowship Director for the Pediatric Endocrinology Program.

Problem Statement: We sought to evaluate the relationship between two Entrustable Professional Activies (EPAs) and specific subcompetencies (SC) on standard pediatric resident evaluations.

Approach: We conducted a one-year cohort study of resident evaluations which included both EPA3 and ABPmapped SCs in the newborn nursery and EPA4 and ABP-mapped SCs on inpatient teams. A five-point scale with 0.5 increments was used both for EPAs and SC milestone levels (1-5). Pearson correlations were used to assess the relationship between mapped SC and EPAs. Cross tabulation was used to analyze the frequency a given EPA rating back-mapped to a specific SC milestone level. Multivariate linear regression was used to evaluate the most impactful SC on EPAs.

Lessons Learned: From July 2016 to June 2017, interns were evaluated during a newborn nursery rotation (n=30) and six inpatient blocks (n=155). Correlations between the individual SCs and EPA3 were r=0.399 to 0.709 ($p<0.001$) and with EPA4 were r=0.347-0.644. ($p<0.001$) Cross-tabulations showed when EPA3 was rated a 3.0, 95% of mapped SC were rated milestone levels 3 (+/- 0.5) and when EPA4 rated a 3 91% of mapped SC were rated milestone levels 3 (+/-0.5). Regression analysis revealed that PC6 (accurate examinations) and PROF3 (ethical behavior) were the strongest predictors of EPA 4 ($R^2=0.591$, $p<0.001$) while PC2 (prioritizing responsibilities), PBLI2 (performing learning activities,) and PC3 (hand-offs) were the strongest predictors of EPA3 ($R^2=0.567$, $p<0.001$).

Significance of study: We verified the SCs mapped by the ABP with EPA3 and 4 are moderately correlated and a given EPA rating back maps to a given milestone level within 0.5 the majority of the time. The best predictors of EPA3 were physical exam skills and professional behaviors, and the best predictors of EPA 4 were prioritizing responsibilities, hand-offs, and performing learning activities.

iP4 Interprofessional Workshop: Preparing Health Profession Students for Conversations about Advance Directives

Jordan Cannon, MS, Center for Teaching and Learning; Stacy Barnes, PhD, Marquette University, Wisconsin Geriatric Education Center; Susan Breakwell, PHNA-BC, DNP, Marquette University, Institute for Palliative & End of Life Care; Judy Myers, MS, MT (ASCP), MCW

Presenter Biosketch: Jordan Cannon is the Interprofessional Education Coordinator at Marquette University and the Medical College of Wisconsin.

Problem Statement: Completion rates for advanced directives (AD) continues to be low, despite the presence of federal and state legislation (IOM, 2015). A systematic review of interventions studies focused on increasing AD completion rates concluded that patient-provider interactions in which patients had the opportunity to ask questions and/or receive assistance completing paperwork significantly increased completion rates (Jezewski et al., 2007). Health profession students must be prepared to have these important conversations and overcome any existing barriers to effective patient-provider communication (Myers et al, 2017). Ideally, all members of the healthcare team should be comfortable having conversations with patients regarding their values, goals, and preferences (IOM, 2015).

Approach: An interprofessional planning team from Marquette University and the Medical College of Wisconsin developed a 2-hour reflective, interactive workshop for health profession students to improve their understanding of ADs and their comfort level in having AD conversations. The workshop will be piloted on National Healthcare Decisions Day, April 16, 2018. Students are registered from medicine, nursing, physician assistant, speech pathology/audiology, counseling psychology, and biomedical science. Through guided self-reflection and small group discussion, participants will reflect on their own preferences for end-of-life care and explore how to start this conversation with others. The Five Wishes (Aging with Dignity, 2018) workbook will guide discussion. Evidence-based practices for engaging patients in AD discussions (Myers et al, 2017) and other resources will also be provided.

Lessons Learned: The workshop has been positively received by both faculty and students, indicating the interest and need for this type of program. Within one week of registration opening, 80% (n=81) of available slots were filled by students on a voluntary basis. Program evaluation will include learners' reactions to the workshop and suggestions for improvement. In addition, a retrospective pre/post-test will be used to assess participants' gains in knowledge, self-efficacy, and comfort in engaging others in conversations about AD. Learners will also report one action item they plan to take as a result of participating in the workshop. A brief electronic survey will be sent to participants 2-weeks following the program, assessing what action steps have been taken since the workshop.

Significance of study: This initiative aligns with current recommendations for advanced care planning (IOM, 2015; Myers et al, 2017), and helps prepare health profession students to have conversations about AD. Data will be used to make improvements, so it can become an annual interprofessional event.

References: Aging with Dignity. (2018). Five Wishes. Tallahassee, FL: Author. Retrieved from: https://agingwithdignity.org/five-wishes Institute of Medicine. (2015). Dying in America: Improving quality and honoring individual preferences near the end-of-life. Washington, DC: The National Academies Press. https://doi.org/10.17226/18748 Jezewski, M. A., Meeker, M. A., Sessanna, L., & Finnell, D. S. (2007). The effectiveness of interventions to increase advance directive completion rates. Journal of Aging and Health, 19(3), 519-36. Myers, J. M., Duthie, E., Denson, K., Denson, S., & Simpson, D. (2017). What can a primary care physician discuss with older patients to improve advance directive completion rates? A Clin-IQ. Journal of Patient-Centered Research and Reviews, 4(1), 42-45.

iP5 A novel course to track medical students' competency progression throughout the third and fourth years of medical school

Leslie Ruffalo, PhD, MS, MCW Family and Community Medicine; Kathleen Beckmann, DO, MCW; Ankur Segon, MD, MCW; Raj Narayan, MD, MCW; Alexa Dorman, M.Ed, MCW; Michael Lund, MD, MCW

Presenter Biosketch: Leslie Ruffalo, PhD, MS is an Assistant Professor in the Department of Family and Community Medicine. Dr. Ruffalo's research focuses on applying a socioecological framework to health issues. Educationally, Dr. Ruffalo is interested in implementing and evaluating competency-based assessment strategies.

Problem Statement: The number of medical schools across the country that are transitioning to competency-based assessment in undergraduate medical education are increasing, yet there is not a generally accepted model to best integrate such assessment into the medical school curricula.

Approach: The Medical College of Wisconsin has implemented the Continuous Professional Development (CPD) course. The CPD course spans the third and fourth year of medical school with the goal of ensuring students continued professional development towards meeting our school's global competencies. Each student is assigned a CPD director who monitors and tracks the student's progression along our school's 8 global competencies, rotation evaluations, standardized test scores and progress on a student completed self-assessment tool. In addition, the CPD course conducts 4 discrete courses throughout the third and fourth year of medical school to teach competencies that are not adequately covered elsewhere in the curriculum.

Lessons Learned: Competency-based assessment as part of the CPD course poses several challenges, but offers a promising strategy to track medical students' progress towards becoming competent physicians. Students value the support and counsel of their CPD directors. Robust communication between the medical school and CPD course are integral to the success of this course. There might be additional value in early identification and remediation of students who struggle with standardized tests and coursework during the first two years of medical school.

Significance of study: Medical education continues to experience a paradigm shift from structure- and time-based formats to competency-based assessment. Lessons are emerging regarding best practices, but more research is needed to better understand how to accomplish full implementation of the competency-based model.

iP6 Patient safety superheroes: Using a comic book to train residents on patient safety

Rushi Patel, BS, MCW M2 Medical Student; Kathlyn E. Fletcher, MD, MA, VA Medical Center

Presenter Biosketch: Rushi is a second-year medical student with a talent and enthusiasm for drawing medical comics. His ambition is to find out how drawings and comics can be used as effective learning tools in the practice of medicine.

Problem Statement: The Accreditation Council for Graduate Medical Education's (ACGME) Clinical Learning Environment Review (CLER) process required patient safety training for all residency programs. The challenge is developing formal programming that is both engaging and high yield for the learners. Some institutions are using simulation for patient safety teaching. Unfortunately, the Medical College of Wisconsin residency programs do not have funding to use simulation for this type education.

Approach: We used a comic book based learning tool to highlight patient safety issues. The comic consisted of 5 graphics with 24 specific safety concerns spread across them. The comics together took the reader admission for an elderly patient through sign out and decompensation of the patient. Questions were included with each graphic to prompt the reader to look for safety concerns. This comic book was implemented during the internal medicine intern core skills week. Residents had 15-20 minutes to individually identify all the safety concerns in the comic, followed by an open dialogue where the residents identified the safety hazards as a group. The curriculum was implemented three times to in groups of 16-18 participants.

Lessons Learned: Of the 50 residents who participated in the course 49 filled out the pre-survey and 50 filled out the post survey. 49 (98%) interns found the curriculum either engaging or highly engaging. 42(84%) interns found this curriculum more engaging than their prior patient safety curriculum. 45 (90%) of participants stated they had either enjoyment or high enjoyment of the curriculum. After doing the curriculum 51% of participants were found to have increased their confidence level of identifying patient safety concerns. 65.3% had an increase in their confidence of speaking up about patient safety concerns. When identifying specific safety risks in the comic, the following risks showed a large increase in resident awareness before and after the session: Keeping one bedrail down, Name alerts for similarly named patients, Oxygen tubing properly placed on patient, and restraints properly tied.

Significance of study: Residents had been trained at multiple medical schools and therefore this study represents of a broad range of safety education. This curriculum helped to demonstrate some of the area of training that starting interns are very familiar with as well as some areas that they are unfamiliar with.

iP7 Using Maintenance of Certification to Promote Advance Directive Discussions in Primary Care

Edmund Duthie, MD, MCW Medicine (Geriatrics/Gerontology); Judith Myers, MS, MCW; Deborah Simpson, PhD, Aurora Health Care, UW, MCW; Kathryn Denson, MD, MCW; Steven Denson, MD, MCW

Presenter Biosketch: Dr. Duthie is Professor of Medicine (Geriatrics/Gerontology) and Chief of the Division of Geriatrics/Gerontology. He is a member of MCW's Society of Teaching Scholars. He and his colleagues have been funded the past 20 years to explore enhancing and strengthening geriatrics in medical education.

Problem Statement: Physicians and patients agree that primary care visits are the appropriate place to discuss advance directives (AD) with geriatric patients as it normalizes the discussion. Yet barriers are known to keep AD completion rates low.

Approach: An interprofessional team designed and implemented a three-health care system approved AD focused Maintenance of Certification (MOC) Part IV activity for primary care physicians (PCPs) to meet American Board of Medical Specialists (ABMS) requirements. The activity focuses on PCPs initiation of brief (2-3 min) AD conversations with geriatric patients. The activity was launched at a statewide PCP meeting using a workshop that employed interactive educational strategies (quiz, video analysis, role play). Retrospective "post-post" evaluation focused on workshop processes and outcomes.

Lessons Learned: Eight PCPs completed the session reporting that at baseline the modal number of conversations PCPs initiated each week about ADs was 1/week (range 0 to 10). All participants targeted a minimum 25% increase in AD conversations as the improvement goal. Post workshop evaluation analysis found: 1) improvement among four literature-based barriers to AD discussions in the aggregate of responses; 2) all participants were more likely to initiate conversations with patients about ADs; and 3) 88% (7/8) were "very likely" to recommend the session to a colleague.

Significance of study: Experienced PCPs perceive AD discussions as fraught with barriers. This brief (90 min) interactive AD discussion focused MOC activity minimized perceived barriers and increased primary care physician commitment to increase AD discussions with geriatric patients.

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iP8 Use of High-fidelity Simulation Mannequin in an Autonomic Nervous System, Interprofessional Education (IPE) Session

Abir T. El-Alfy, PhD, Biopharmaceutical Sciences, School of Pharmacy, MCW; Sue Korek, MAED, MCW; Jessica Vitch, CAA, MCW; Rachel Kavanaugh, PharmD, BCACP, MCW

Presenter Biosketch: Abir El-Alfy is an Associate Professor of Biopharmaceutical Sciences-Pharmacology. Dr. El-Alfy has experience in teaching medical and pharmacy students. She is a six-time recipient of teacher of the year award and the 2015 Chicago State University Faculty Excellence Award in Teaching.

Problem Statement: Autonomic nervous system (ANS) pharmacology is a core topic in all health care professional curricula. However, it can be a difficult concept for students to fully comprehend, especially because of its early placement. In most curricula, ANS pharmacology immediately follows the general principles of pharmacology lectures. Students' struggle with the topic stems from: 1) students' inability to visualize the ANS as a whole, 2) the long list of drugs provided, and 3) the fact that the students do not connect the clinical application to the basic concepts of ANS pharmacology.

Approach: In this study, an interprofessional education (IPE) session was developed that focused on the clinical applications of ANS pharmacology. The session included 43 first-year Pharmacy and 15 first-year Master of Science in Anesthesia (MSA) students. Three clinical cases of autonomic nervous system toxidromes were designed and simulated using a high-fidelity mannequin. The students worked in preassigned interdisciplinary groups to evaluate the patient, identify the toxidrome, and develop the treatment plan. Students also worked in their groups to answer a set of interprofessional questions that reinforced the pharmacology lecture material as well as emphasized the roles and responsibilities of both disciplines. A large group debrief was held at the end of the session and the students completed the Interprofessional Collaborative Competencies Attainment Survey (ICCAS).

Lessons Learned: Results of the ICCAS showed positive reactions to the session. Students strongly agreed that the simulation cases "helped to connect didactic information with real life scenarios" and that the session was "extremely innovative and fun". Students also valued the interprofessional experience the session offered. Survey results revealed that the activity enhanced students' interprofessional communication, their understanding of roles, responsibilities, and overlapping practice scopes, and their IPE team approach to provide patient-centered care. Students suggested decreasing the group size and increasing the group interaction time in order to enhance collaborative team work.

Significance of study: The use of a high-fidelity simulation mannequin early in the curriculum can enhance student learning. The application to the pharmacology of ANS topic provides a valuable tool for reinforcement of didactic lecture material and offers platform for interprofessional collaboration.

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iP9 Character in Medical Education: Linking the Triple Aim in Health Care to the Medical College of Wisconsin's Triple Aim for Medical Education

Ryan Spellecy, PhD, Kern Institute; Jose Franco, MD, MCW; Joseph Kerschner, MD, MCW; John Raymond, MD, MCW; Cheryl Maurana, PhD, MCW

Presenter Biosketch: Professor Spellecy is the Ursula von der Ruhr Professor of Bioethics in the Center for Bioethics and Medical Humanities and holds a secondary appointment in the Kern Institute for Transforming Medical Education. At Kern, his primary focus is on defining, measure, and flourishing character.

Problem Statement: As we seek to transform education through the Triple Aim in Medical Education, we first sought to link to the Triple Aim in Health Care. As we began to explore character in medical education, we realized that there is very little literature on this topic. Thus, we sought to define character in medical education for the Kern Institute at MCW.

Approach: We conducted numerous character listening sessions with faculty, students, staff and patients. We identified themes in these listening sessions and refined these themes via virtue and character theories from the philosophical and psychological literature. By conducting character listening sessions that were focused on medical education and interpreting the data through robust, albeit non-medical frameworks, we crafted a definition of character in medical education.

Lessons Learned: We learned that character in medical education is viewed as an internal state that guides actions, though does not mean someone with character never makes mistakes. We also identified a wide range of views regarding how developed character is by the time a student enters medical school, and thus whether character can be shaped in medical school. Lastly, we found that patients show great concern for the health and well-being of their physicians.

Significance of study: While there have been attempts at defining character in medical education, most of have been theoretical and not informed by empirical evidence, or have been from other countries. With a robust definition of character, we are poised to better measure, teach, and create conditions for flourishing.

iP10 Improving junior medical student (JMS) pediatric knowledge and satisfaction with resident teaching using premade teaching resources

Alina Burek, MD, MCW Pediatrics; Kris Saudek, MD, MCW

Presenter Biosketch: Dr. Alina Burek is a junior faculty in the department of Pediatrics, section of Hospital Medicine.

Problem Statement: At our institution third year medical students reported they would like more formal teaching from pediatric residents. Because residents have many clinical responsibilities, finding time for teaching on wards can be challenging. To address this limitation, we created premade teaching materials for residents to use with their students. Over the course of the 2016-2017 academic year we sought to: 1) improve JMS satisfaction with pediatric resident teaching (as measured by student surveys) by at least 0.5 points (on a 5-point Likert scale), and 2) improve pediatric knowledge score by 10% (as measured by our clinical knowledge test and the pediatric National Board of Medical Examination (NBME)).

Approach: Premade PowerPoints (ppt) covering general pediatric topics were made available to all residents on our educational platform (D2L) to encourage formal teaching. Resident survey indicated the ppt were infrequently used due to lack of awareness of their existence and location. Two interventions were implemented: 1) residents were educated about the ppt, and 2) fliers were placed in resident work rooms. Outcome measures included rating of the JMS satisfaction with resident teaching during their clerkship and average JMS scores on both clinical knowledge test (10 multiple-choice questions based on ppt content) and NBME scores. Process measures included percentage of residents using the ppt pre/post intervention (both self-report and tracking their use on our educational platform).

Lessons Learned: Use of premade ppt increased post-intervention from 17% to 51%. Student satisfaction scores with teaching after intervention ranged from 4.26 to 4.52 (on a 5-point Likert scale). Average clinical knowledge scores increased by 10%. Recent NBME scores are increasing and have been consistently above the national average (Fig).

Significance of study: Premade teaching material increased the number of formal resident teaching sessions on a pediatric clerkship. An increase was noted on both, the clinical knowledge scores and NBME scores.

iP11 Mock Interview Program for M4 Students: Impact on Residency Interview Experience

Alexa Dorman, MSEd, MCW Academic Affairs; Kathleen Beckmann, DO, MCW; Raj Narayan, MD, MCW; Leslie Ruffalo, PhD, MCW; Ankur Segon, MD, MCW; Nai-Fen Su, PhD, MCW

Presenter Biosketch: Education Program Coordinator for Continuous Professional Development at MCW Milwaukee.

Problem Statement: Medical students have limited opportunities to prepare for the residency interview process between the time that they apply for medical school and when they start the residency interview trail in their fourth year. Many of our students are now interviewing with over fifteen residency programs and preparing for interviews can be a daunting experience. We implemented the Mock Interview Program to better prepare students for the interview process. To evaluate the effectiveness of the Mock Interview Program we surveyed students regarding their experience during the time between their mock interview and Match Day. The purpose of the survey was to glean their level of satisfaction with the Mock Interview Program.

Approach: MCW implemented the Mock Interview program in 2014, and the program was absorbed into the Continuous Professional Development course in 2015. The program arranges for students to have a practice interview with a faculty member in their specialty of interest. The interviews are recorded on video and are 25 minutes in length. The faculty members give immediate face to face feedback and also written feedback that is sent to students after the event. In February 2018 the M4 class was sent an anonymous survey asking them to reflect on their Mock Interview experience and whether they believe it either helped or did not help them during their residency interviews. The survey contained 17 Likert scale items that asked them to rate different aspects of the experience as well as to provide written comments on their experience and how the experience could be improved in the future.

Lessons Learned: In general, M4 students valued the Mock Interview and felt that it was good practice for their residency interviews. Out of the 71 students who responded, 64 of them answered "Strongly agree" or "Somewhat agree" that the Mock Interview was a positive experience, and 62 of them chose the same answers when asked if the Mock Interview helped better prepare them for residency. 58 of the 71 students also answered "Somewhat" or "To a great extent" when asked if the Mock Interview made them more comfortable with their residency interviews. Out of our 71 responses, 66 of our M4 students believed that the Mock Interview program should be continued and all respondents felt that the program should be continued with face to face interviews as practice.

Significance of study: MCW's Mock Interview Program is well received among the M4 students and has been an effective strategy to prepare them for the residency trail. The students believe that practice gained with in-person interviews is most effective for them and would like to see the program continue for future classes.

iP12 Finding meaningful experiences for health/social care students through non-traditional IPE

Michael Oldani, PhD, MS, Office of Interprofessional Education - CUW

Presenter Biosketch: M. Oldani, a medical anthropologist, is Director of IPE @ CUW and has worked to advance interprofessionalism in southeastern Wisconsin since 2015. He is currently implementing several new initiatives on campus, including IPE certificates for health and social care students.

Problem Statement: One problem for current health and social care students is for them to gain meaningful interprofessional experiences before they embark on clinical rotations and practicums - to gain depth in their training for more job-ready skills. At CUW at we piloted an innovative approach to IPE by forming teams of students to observe Milwaukee County Drug Treatment court and the staffings of their coordinated care team (2015 to present). One goal was for the students to observe so-called non-traditional IPE in action - through the court team.

Approach: Specific IPEC competencies where identified and students met before and after court and shared documents and notes on a shared drive - to target these skills/competencies. The end result was meaningful IPE in the form of writing up their observations of how team dynamics worked. More importantly, the program evolved into one of 'active referrals', where students interviewed clients in the court (i.e., drug users in treatment), who had complex medical issues. Students and clients connected during these interviews, which were more concerned with health history and family and background, and were able to make recommendations for the court team and case managers. Students took an ethnographic approach to these interviews.

Lessons Learned: Students need to experience person-centered care directly in meaningful ways. Students showed growth based on pre-post assessments in teamwork and interprofessional communications. Moreover, students that interviewed clients directly connected and humanized these individuals, who have complex health needs and are undergoing complex and coordinated care for addiction.

Significance of study: The IPE literature shows, students gain the most in terms of IPEC competencies when they have meaningful experiences outside the classroom on interprofessional teams. What is lacking in the IPE literature is the role of ethnography (e.g., observations and in-depth interviewing).

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iP13 Introducing medical students to laboratory professional students and vice versa: An Interprofessional Education Collaboration on laboratory medicine across the 3 MCW campuses

Alexandra Harrington, MD, MT(ASCP), MCW Pathology, Kern Institute; Cecelia W. Landin, EdD, MLS(ASCP), Marquette University; Robert Treat, PhD, MCW, Academic Affairs; Jordan Cannon, MCW and Marquette University, Office of Educational Improvement

Presenter Biosketch: Alexandra Harrington, MD received her medical degree from the Medical College of Wisconsin (MCW) in 2004 and completed a Pathology residency and Hematopathology fellowship. Dr. Harrington serves as co-director for the Hematology/Oncology unit in the M2 year.

Problem Statement: Interprofessional education (IPE) serves to bring together learners from various occupations in team-based exercises to mimic the interprofessional patient care teams they will depend on in their future careers. Medical schools have designed such IPE sessions to involve student dieticians, physical therapists, nurses, dentists, pharmacists, psychologists, and social workers, thus offering medical students exposure and appreciation for a wide variety of professional students. However, few medical schools have incorporated laboratory science into these IPE sessions, despite the large role laboratory testing plays in physician clinical decision making. As laboratory medicine is variably taught in medical school curricula, we designed an IPE session combining medical students (MDs) with laboratory professional students, across the three MCW campuses.

Approach: MCW MDs and laboratory professional students (Clinical Laboratory Science- CLSs and Medical Laboratory Technicians- MLTs) participated on 3 campuses and classrooms, including MCW-MKE MDs and Marquette University's CLSs; MCW-GB MDs, Northeast Wisconsin Technical College's MLTs, and the University of Wisconsin-Oshkosh's CLSs; and MCW-CW MDs, Northcentral Technical College's MLTs and Aspirus's CLSs. Students were assigned pre-reading on complete blood counts (CBCs) and were asked to take a pre- and post-session survey. During the session, students worked together on virtual microscopy laboratories and application exercises. The session was adapted from material previously presented during the traditional MCW curriculum and the initial MCW Discovery Curriculum.

Lessons Learned: 151 MD students completed the pre-survey and 88 completed the post-survey. 19 CLS students completed the pre-survey, while 17 completed the post-survey. A paired Wilcoxon Test reported significant ($p<0.001$) pre-post increases in median scores for "I am familiar with CLS/MLT as careers", from median (interquartile range) = 3.0 (2.0) to 4.0 (1.0) with a significant Spearman's pre-post correlation ($rs<0.435$, $p<0.001$). An unpaired Mann-Whitney U-test indicated significant ($p<0.010$) pre-post increases in median scores for the CLS question "I am familiar with the training medical students have in CBC and differential interpretation," from 3.0 (2.0) to 4.0 (1.0). 81% of post-survey MD respondents reported "an enhanced awareness of the roles of other professionals on a team". 82% of post-survey CLS respondents reported the same. Qualitative results from the MCW-CW/MCW-GB campuses were positive.

Significance of study: Our collaboration represents an innovative approach to teaching MDs lab medicine and familiarizing MDs with laboratory professionals. Implementing such IPE recognizes these professionals as vital to the patient care team and is an opportunity to strengthen our MD's lab medicine curriculum.

iP14 Developing a Faculty Career Development Academy: Achieving Excellence in Teaching and Learning

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Presenter Biosketch: Alexandra Harrington, MD, MT(ASCP)CM is an Associate Professor in the Department of Pathology and a Pillar Director (Faculty) in the Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education.

Problem Statement: The Robert D. and Patricia E. Kern Institute for the Transformation of Medical Education at the Medical College of Wisconsin (MCW) is creating a faculty career development academy, focused on fostering the triple aim of character, caring, and competence, which will rigorously enhance teaching skills, encourage interprofessionalism, and promote participant resilience and character reflection. Using the principles of adult learning, the curriculum will include core courses (instructional strategies, measurement and evaluation, educational scholarship, and curriculum design) and supplemental topics (generational learning (1,2), interprofessional education (3), health systems science (4), character development (5), and change management) designed to equip educators for innovation. Our study solicited faculty preferences for the career development academy.

Approach: In 11/2017, an eleven-item needs assessment was electronically distributed to 1827 faculty; 307 responded (17%). Responses were analyzed using Pearson chi-square with IBM® SPSS® 24.0. 26 faculty participated across three focus groups. Focus group transcriptions were coded using the constant comparative method to generate a finalized thematic structure. Respondents: 258/307 (84%) respondents expressed interest. All MCW schools, ranks and campuses were represented. Schedule/Duration: Faculty preferred weekday morning or afternoon sessions vs. evenings or weekends with 1-2 hrs./mo. and a flexible schedule completion vs. set duration. Structure: A hybrid curriculum was preferred (58) vs. online (24) or classroom (18). Themes: Faculty wanted to address: institutional "silos," improving IPE, enhancing "mindful curation" of curricula, and departmental support/protected time.

Lessons Learned: Survey respondents preferred a hybrid online/classroom curriculum conducted during traditional workday hours, but focus group members reported that they wanted face-to-face time. The academy steering committee must consider conflicting results of the survey and focus groups regarding the curricular structure. The overwhelming majority of faculty respondents believed academy participants should commit one to four hours per month with a flexible completion date over the course of one to two years. The most senior faculty were significantly less likely to prefer a hybrid classroom curriculum and more likely to believe that the time commitment should be less.

Significance of study: Faculty from all MCW schools and campuses were interested in a faculty career development academy to master traditional and innovative topics in academic medicine. Faculty desired to enhance their pedagogical practices, but need appropriate support and recognition to make the program sustainable.

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iP16 Incorporating Self-Directed Learning (SDL) Opportunities to Improve the Integration of Reliable Basic Science Evidence into Future Clinical Practices

Johnathon Neist, MLIS, MCW Academic Affairs; Patricia Hurlbut, MSEd, MT, MCW

Presenter Biosketch: Johnny Neist and Pat Hurlbut are both instructional designers within the Office of Educational Improvement. They love to work with faculty to design the best educational experience that MCW has to offer.

Problem Statement: Healthcare is advancing at an incredible pace, and healthcare providers are expected to constantly scan and filter many sources of information to keep up with these advances. Some students entering clinicals are often prepared to search for peer-reviewed literature efficiently or effectively. To address this gap, we needed to provide training and opportunities to practice this manner of self-directed learning to develop life-long learners that are well prepared to keep up with current basic science evidence to support clinical practices. This challenge led to the development of a longitudinal rubric, based on LCME standard 6.3, to measure progressive improvement in the selection and presentation of supporting evidence for basic sciences and clinical practices.

Approach: An SDL Subcommittee was formed to develop curriculum activities that would develop strong library research skills and opportunities to receive feedback. Further, time within the curriculum should also be provided to share what students have independently learned. Instructional designers worked with a librarian on the committee to develop a rubric which could describe progressive competence in identifying gaps in their knowledge, searching for answers in the literature, and organizing their new knowledge to share among their peers. Faculty then developed various SDL activities, and this rubric helped to ensure that faculty had a consistent measurement across the first two years of basic science courses. The rubric was also consulted in creating new activities as well. To date, seven courses and two scholarly pathways have formally incorporated formalized SDL.

Lessons Learned: Taking these concepts from committee to a reality took a lot of faculty trust: trust in the instructional designers and trust that their students would embrace more active learning. As hundreds of students' projects are assessed, valuable data becomes evident in how they go about searching for medical literature. This data is helpful to MCW libraries, the Office of Educational of Improvement, and Curriculum. The materials that have been shared in courses has qualitatively demonstrated that students are improving their abilities to search and summarize the peer-reviewed literature.

Significance of study: The current M1 class will go through medical school never knowing a curriculum without SDL. M2 students have opted into SDL activities on their own volition. As these students go into clinicals, they now have a foundation for discovering, accessing, analyzing, and sharing credible medical literature.

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rP1 The Relational Structure of Medical Student Values and their Impact on Third-Year Cumulative Clerkship Scores

Robert Treat, PhD, MCW Office of Academic Affairs; Diane Brown, MS, MCW; Craig Hanke, PhD, MCW; Kristina Kaljo, PhD, MCW; Amy Prunuske PhD, MCW; Koenraad De Roo, MCW; William J. Hueston, MD, MCW; Dawn Bragg PhD, MCW

Presenter Biosketch: Robert Treat, PhD is an Assistant Professor of Emergency Medicine and the Director of Measurement and Evaluation in the Office of Academic Affairs at the Medical College of Wisconsin.

Background: Medical students generally rank the value of benevolence[1] - the care and concern of individuals immediately around them - as one of their most important values[2], but this may not be the best predictor of their behavior since values often only operate as weak proxies for personal traits (e.g., being honest is a value and a trait). Therefore, examining self-reported medical student values and their relationship to clinical performance would report future indicators of student success from their personal standards. The purpose of this study is to predict third-year medical student clerkship scores from self-reported student values.

Method: In 2014-15, 60 of 204 M-1 medical students voluntarily completed the self-reported 56-item Schwartz's Value Inventory (scale: 0=not important, 7=supreme importance). In 2016-17, these same students completed eight required third-year clinical clerkships, and end-of-clerkship cumulative percentage scores were used for the outcome variables. Stepwise multivariate linear regressions were used for predicting end-of-clerkship cumulative student scores from their values. IBM® SPSS® 24.0 generated statistical analysis. This research was approved by the institution's IRB.

Results: The medical students ranked the importance of ten human values via mean scores as: benevolence (mean=5.2), self-direction (5.1), achievement (5.0), hedonism (4.9), universalism (4.7), security (4.6), conformity (4.6), stimulation (4.4), tradition (3.7), and power (3.1). Seven of eight end-of-clerkship cumulative student scores were significantly predicted by medical student values (R^2=0.2-0.5, $p<0.001$). The overall average of all eight end-of-clerkship cumulative student scores was predicted (R^2=0.3, $p<0.001$) by conformity (beta= -0.4), self-direction (-0.3), achievement (0.3), and security (0.2).

Conclusions: These findings provide analytical evidence that medical students ranked benevolence as their highest personal value and power as their lowest. Early self-reported medical student values can predict later performance in nearly all required third-year clinical clerkships.

Significance: The significance of the study was that third-year medical student clerkship scores were predicted from self-reported student values.

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rP2 Emotional Regulation of Stress in Medical Students to Lower Burnout in New Three-Year Medical Degree Programs

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Presenter Biosketch: Robert Treat, PhD is an Assistant Professor of Emergency Medicine and the Director of Measurement and Evaluation in the Office of Academic Affairs at the Medical College of Wisconsin.

Background: Important curricular restructuring at our institution has created two new three-year medical degree programs at separate campuses in which the students are challenged to complete medical school within an accelerated timeline.[1],[2] The objective of this study is to analyze medical student burnout across three- and four-year medical school campuses and its prediction from perceived stress and emotion regulation.

Method: In spring 2017, 119/500 medical students (74 four-year campus/45 three-year campus;76 M-1/43 M-2) voluntarily completed these self-reported electronic surveys: Maslach Burnout Student Scale (1=never, 7=every day), Perceived Stress Survey (1=never, 5=very often); and Trait-Emotional Intelligence to measure emotion regulation (ER, 1=completely disagree, 7=completely agree). Analysis of variance compared differences in mean burnout scores and Cohen's d determined effect size. Pearson correlations (r) and stepwise multivariate linear regressions used for predicting burnout from stress and emotion regulation. IBM® SPSS® 24 generated statistical analysis. This research was IRB approved.

Results: Student burnout scores (alpha=0.90) for the three-year campuses were significantly (d=.43, $p<0.034$) higher (M (SD)=24.3 (6.1)) than for the four-year campus (21.3 (7.2)). Burnout was correlated with ER ($r(117)=.65$, $p<0.001$) and stress ($r(117)=-.42$, $p<0.001$). Three-year campus: The significant predictors of burnout ($R^2=.61$, $p<0.001$) were difficulties piling up (beta=.5) and feeling nervous (.4). Feeling nervous was mediated by ER ($R^2=.45$, $p<0.001$). Four-year campus: The significant predictors of burnout ($R^2=.45$, p.001) were feeling nervous (beta=.5) and controlling irritations (-.4). Controlling irritations were mediated (beta=.0) by ER ($R^2=.34$, $p<0.001$).

Conclusions: These findings provide analytical evidence that medical student burnout is higher at the three-year campuses. Burnout, perceived stress, and emotion regulation are significantly correlated, and different elements of stress will predict burnout at the three- and four-year campuses. Emotion regulation will lower the impact of some elements of stress and they will vary between campuses.

Significance: The significance of this study is that emotion regulation mediated medical student perceived stress and burnout differently across three- and four-year medical school campuses.

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rP3 Analysis of Self-Reported Medical Student Academic Efficiency from Student Traits in New Three-Year Medical Degree Programs

Robert Treat, PhD, MCW Office of Academic Affairs; Koenraad De Roo, MCW; William J. Hueston, MD, MCW; Kristina Kaljo, PhD, MCW; Diane Brown, MS, MCW; Craig Hanke, PhD, MCW; Amy Prunuske, PhD, MCW, Dawn Bragg, PhD, MCW

Presenter Biosketch: Robert Treat, PhD is an Assistant Professor of Emergency Medicine and the Director of Measurement and Evaluation in the Office of Academic Affairs at the Medical College of Wisconsin.

Background: Two new three-year medical degree programs at our institution utilize compressed curricular timelines which brings with it the necessity of academic efficiency.[1] Medical students in these programs need to be proficient with their academic resources to avoid performance problems and burnout.[2] Their success in the three-year programs will be dependent on personal characteristics such as resilience and personality.[3] The purpose of this study is to analyze the relationship of academic efficiency (AE) and medical student characteristics of resilience, personality, trait-affect, emotional intelligence, and anxiety in three-year medical degree programs.

Method: In spring 2017, 124/500 medical students voluntarily completed these self-reported surveys: RS-25 Resilience Scale; Five-Factor Personality Survey; Positive and Negative Affect Schedule (PANAS-X); Trait-Emotional Intelligence (TEIQue-SF); and Trait-Anxiety. Statistically significant differences in mean AE scores determined by independent t-tests and Cohen's d effect size. Stepwise multivariate linear regressions used for predicting AE scores from resilience, personality traits, trait-affect, trait-emotional intelligence and trait-anxiety. IBM® SPSS® 24.0 generated statistical analysis. This research was approved by the institution's IRB.

Results: AE linear regression model predictors for three-year program (R^2=.71, $p<0.001$) include: authenticity, perseverance, and equanimity (factors of resilience); conscientiousness, agreeableness, and extroversion (trait-personality); determined, daring, timid, scornful, disgusted (trait-affect); self-control (trait-emotional intelligence); and content (trait-anxiety). Four-year program (R^2=.65, $p<0.001$): purpose and perseverance (resilience); conscientiousness and neuroticism (trait-personality); strong, confident, active, proud, disgusted, delighted, and excited (trait-affect); sociability and self-control (trait-emotional intelligence); satisfied, calm (trait-anxiety).

Conclusions: These findings provide analytical evidence that medical students in three- and four-year medical degree programs require different personal characteristics to achieve similar levels of academic resilience. Higher levels of academic efficiency are achieved with higher levels of resilience, conscientiousness, agreeableness, extroversion, emotional intelligence, being determined, daring, and content.

Significance: Medical student academic efficiency was significantly associated with personality traits and differed by three- and four-year medical degree programs.

References: 1. Raymond JR, Kerschner JE, Hueston WJ, Maurana CA. The Merits and Challenges of Three-Year Medical School Curricula: Time for an Evidence-Based Discussion. Academic Medicine 2015;90(10):1318-1323.
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rP4 Perception of Internal Medicine residents regarding writing and presenting case reports

Pinky Jha, MD, MPH, MCW General Internal Medicine/Hospitalist; Sanjay Bhandari, MD, MCW

Presenter Biosketch: Dr. Jha is associate professor in division of general internal medicine/section of Hospitalist medicine since 2009. Has special interest in medical education and has mentored numerous students and residents in scholarly projects

Background: Writing and presenting case reports provides opportunity for scholarly activities and promotes scientific writing and critical thinking. This study assesses Internal Medicine residents' perceived benefits, challenges, and barriers regarding writing and presenting case reports.

Method: A Qualtrics survey was emailed to total 125 Internal Medicine Residents of the Medical College of Wisconsin. The survey questionnaire aimed to assess if the residents have presented case reports previously, their perceptions on factors facilitating case report writing, its benefits and the barriers to writing and presenting case reports. Responses were obtained on a 5-point Likert scale. Data were analyzed as respective frequencies and percentages. The comparison between the responses between those who have and have not presented case reports previously was performed using Fischer exact test. All analyses were performed using SAS 9. 4.

Results: Based on the preliminary data, 41 residents (33%) completed the survey. 59% said they have not presented case reports previously (Figure 1). 95% of the residents believed ('agreed' or 'strongly agreed') that finding an interesting case was an important factor in facilitating writing case reports, while 81% perceived finding a good mentor as equally important (Table 1). All respondents (100%) thought case report writing/presenting can improve their presentation skills. Other perceived benefits of case report writing/presenting included improving scientific writing skills (98%), enhancing CV and securing fellowship position (90%) and improving critical thinking (88%). Perceived barriers to case reports

Conclusions: Out survey-based study on Internal Medicine residents showed that the majority have not presented case reports in any meetings. While the residents believed case reports have multiple educational values, there were some perceived barriers such as lack of time, proper training, and a good mentor. Our survey highlights the importance of a structured mentorship program with the capability of providing proper training to the residents with some protective time allocated to the residents for scholarly activities.

Significance: This study shows that our learners perceive benefits and barriers to writing and presenting case reports as their scholarly projects. Training/workshop and mentorship for residents is critical.

rP5 Perceptions of Fourth Year Medical Students (M4) on Writing and Presenting Case Reports

Pinky Jha, MD, MPH, MCW General Internal Medicine/Hospitalist; Sanjay Bhandari, MD, MCW

Presenter Biosketch: Dr. Jha is associate professor in the department of GIM/Hospitalist section. She has special interest in medical education and has mentored numerous students and residents in scholarly writings and presentations.

Background: Case report writing can provide a platform for medical students for involvement in scholarly activities and promote their skills in academic research. Nevertheless, there is limited knowledge on the perceptions of medical students regarding case report writing. We aimed to assess the medical students' perceived benefits, challenges, and barriers regarding the process of writing and presenting case reports.

Method: Our study was based on a survey conducted on all fourth year medical students (M4) of Medical College of Wisconsin, Milwaukee, WI. Survey questionnaire were sent through the emails of the respective students and the responses were followed for over a week after which the survey was closed. Responses were obtained on a 5-point Likert scales ('Strongly disagree', 'Disagree', 'Undecided', 'Agree', and 'Strongly agree'). All the questions in the survey were focused on obtaining the students' perceptions on factors facilitating writing/presenting case report, its benefits and the perceived challenges and barriers to writing and presenting case reports.

Results: The survey questionnaire was sent to the total of 225 medical students. Out of them, 91 responded (response rate of 40.44%). 7 were excluded since they didn't complete the survey. The total students included in the study were 84 of which 67% reported that they have not presented case reports in any regional/national meetings. 99% of the total students believed that finding a good mentor was an important factor in facilitating writing and presenting case reports. In a subgroup analysis, 95% of the students who have never presented any case reports perceived that lack of formal training in writing case reports and/or lack of a mentor were the major barriers to writing/presenting case reports.

Conclusions: Our survey-based study performed on fourth year medical students shows that the majority of the students had not presented case reports in any regional or national meetings. While the majority of students believed that case report writing/presenting has multiple benefits, lack of mentorship and/or formal training were perceived as the major barriers to writing and presenting case reports. More studies are needed in the area and efforts to establish proper mentorship to aid students in writing/presenting case reports are warranted.

Significance: Students perceive benefits and barriers to writing and presenting case reports. Training/workshop and mentorship program might increase scholarly productivity.

rP6 Medical Student's "Final Answer:" Game Show Teaching Sessions Well Rated Even After NBME Examination

Sara Lauck, MD, MCW Department of Pediatrics; Erica Chou, MD, MCW

Presenter Biosketch: Erica Chou, MD and Sara Lauck, MD are pediatric hospitalists and co-created a weekly game show curriculum for M3 students during the inpatient portion of the pediatric clerkship. They have presented a workshop on how to effectively teach using game format at numerous conferences.

Background: Previous study has shown that medical students (M3) perceive game show format educational sessions during the pediatric clerkship to be applicable to education on the wards and shelf exam preparation. However, M3 perceptions of game show session effectiveness following the completion of the pediatric clerkship and National Board of Medical Examiners (NBME) examination have not been measured. The objective of this study is to measure M3's long-term perceptions of the enhancement of game show educational sessions on pediatric NBME exam preparation and clinical knowledge.

Method: M3s rotating on inpatient pediatrics participated in a 1-hour weekly game show teaching session including elements from various games such as "Cranium" and "Who Wants to be a Millionaire." From October 2015-March 2016, an electronic SurveyMonkey survey was sent to M3 students after their NBME pediatric examination and completion of the pediatric clerkship. Survey data was obtained prior to M3 receipt of performance evaluation and grade. Using 3 questions, perceptions of the sessions' influence on NBME exam preparation and clinical knowledge on the pediatric wards was assessed using Chi-square analysis.

Results: Forty-one of total 97 surveys were completed. Among respondents, 87.8% and 85.4% agreed or strongly agreed that "game show sessions significantly enhanced…" "…my NBME shelf preparation" and "…my clinical knowledge on the pediatric wards," respectively, with single sample chi-square analysis suggesting significantly higher rates of agree or strongly agree response compared to disagree or strongly disagree ($p<0.001$). Among respondents, 26.8% and 17.1% felt the game show sessions were most helpful for NBME exam preparation and clinical knowledge respectively, while 56.1% felt they were helpful for both aspects of the pediatric rotation.

Conclusions: Following completion of the pediatric clerkship, M3 students perceive game show educational sessions to have enhanced their NBME exam preparation and clinical experience. Further studies could be completed to assess objective measures of educational enhancement of game show format teaching.

Significance: Since medical students perceive game show format teaching to be useful, this teaching format can be used as an effective way to engage learners in the healthcare setting.

rP7 Retrospective Analysis of a Peer Mentorship Program

Alexandria Ponkratz, MCW M3 Student; Karen Thompson, BS, MCW; Margaret Gallagher, BS, MCW; Sara Lauck, MD, MCW; Erica Chou, MD, MCW; Robert Treat, PhD, MCW

Presenter Biosketch: Alexandria Ponkratz is a third-year medical student interested in pediatrics. In collaboration with two of her peers, Maggie Gallagher and Karen Thompson, she developed Pre-Med Pair Up: A Medical Mentorship and Global Awareness project.

Background: Literature studies suggest widespread advantages to peer mentoring programs; however, data about medical-student-undergraduate mentorship is lacking. To address this gap, a formal mentorship program, Pre-Med Pair Up (PMPU), was established at the Medical College of Wisconsin, where pre-medical students from the University of Wisconsin-Oshkosh and Marquette University were paired with medical student mentors. The program provided peer mentorship and resources including monthly newsletters, volunteer options, and MCAT advice intended to help pre-medical students prepare for medical school and its application process.

Method: After 6 months, retrospective surveys were created for pre-medical and medical students to investigate the effectiveness of PMPU. One survey was distributed to the 26 medical student mentors, of which 13 completed the survey, and a second survey was distributed to the 43 undergraduate participants, of which 11 completed the survey. Spearman rho correlation analyses were used to assess the associations between program components and student confidence and knowledge. Inter-item reliability analysis was determined by Cronbach alpha.

Results: Reliable (alpha=0.96) pre-medical student survey results showed that most students felt that their confidence in abilities as a pre-medical student improved with program involvement. This confidence was strongly correlated with students' knowledge of volunteer opportunities ($rho=0.887$, $p<0.001$), feelings of preparedness for the medical school application process ($rho=0.854$, $p<0.001$) and medical school curriculum ($rho=0.871$, $p<0.001$). Medical students thought the program was successful in making them better mentors. Confidence in their abilities as a mentor was correlated with their feelings of success as a mentor ($rho=1.0$, $p<0.001$).

Conclusions: PMPU is effective in improving student confidence by providing medical students an opportunity to serve as mentors and pre-medical students resources that enhance their understanding of medical school and the application process.

Significance: The study demonstrated that the formal mentorship program PMPU is beneficial to medical and pre-medical students.

rP8 Campus Admissions Preferences for Three- and Four-Year Training Programs at MCW

William Hueston, MD, MCW Family and Community Medicine; Robert Treat, PHD, MCW

Presenter Biosketch: Dr. Hueston is Senior Associate Dean for Medical Education and Associate Provost for Education at MCW. He is a Professor in the Department of Family and Community Medicine.

Background: In response to calls to increase class sizes by 30%, the Medical College of Wisconsin (MCW) opened two new community-based regional campuses in 2016 and 2017. These two campuses used a community immersive model and offered a 3-year 134-week curriculum for students in contrast to a more traditional curriculum in Milwaukee. The goal of this study was to examine whether these campuses were attracting different types of applicants or simply attract the same types of students who were already applying and enrolling in the school's Milwaukee campus.

Method: Data from the applicant pool of candidates to MCW who were Wisconsin residents and applying for the class enrolling in 2017 were aggregated and all identifying information for students was removed. Applicants were categorized by whether they applied just to the Milwaukee or preferred that campus or if they were applying to the regional campuses only or preferred these campuses. Bivariate analyses were generated using student's t-test with Cohen's d effect size, Pearson chi-square, and logistic regression modeling with IBM® SPSS® 24.0. This research was approved by the institution's IRB. A p value ≤ 0.050 was selected for statistical significance.

Results: A significantly higher percentage of applicants to the regional campuses resided in non-urban counties (33% vs. 13%, $p<0.001$) and attended non-research intense undergraduate schools (65% vs. 44%, $p<0.001$) compared to the Milwaukee campus applicant pool. Two applicant qualities were strongly associated with a campus preference: graduation from a Carnegie 1 undergraduate school (preference for Milwaukee) and permanent residence in a rural Wisconsin county (preference for regional campuses). Two other factors, student age and MCAT score, were weakly associated with campus preferences.

Conclusions: Students from rural counties who are older and attended non-research intense undergraduate schools are more likely to apply and attend 3-year regional campuses at MCW.

Significance: These results indicate that the regional 3-year campus model is attracting and selecting students who are different from those at MCW's four-year campus.

rP9 The Use of Direct Observation and an Individualized Simulation Workshop is Associated with Improved Resident Confidence in Bag Mask Ventilation and Intubation Skills

Abby Smolcich, MD, MCWAH - Pediatrics; Joseph Resch, MD, Medical College of Wisconsin Affiliated Hospitals; Amanda Rogers, MD, Medical College of Wisconsin Affiliated Hospitals; Robert Treat, MCW

Presenter Biosketch: My name Is Abby Smolcich. I am from Appleton, WI. I attended medical school at St. George's University in Grenada and undergrad at UW-Eau Claire where I majored in Biology. In my free time I love to spend time with my husband and son and anything outdoors; running, camping, hiking.

Background: The Accreditation Council for Graduate Medical Education (ACGME) Pediatric Residency Program Requirements state that residents must demonstrate competence performing bag-mask ventilation (BVM) and neonatal endotracheal intubation. Graduate survey results indicate that the majority of our graduates do not feel prepared to perform these skills independently. Little is objectively known about their procedural competence due in part to a lack of opportunities to directly observe their skills. Objective: To assess resident competence performing BMV and neonatal intubation and to use that information to develop an individualized simulation workshop aimed at improving their confidence in these skills.

Method: First year pediatric residents were observed performing BMV and neonatal intubation on task trainers. Competence was assessed using a validated checklist by a trained observer. Common themes related to strengths/deficits were noted. This information was used to develop a simulation workshop. During the workshop, residents were observed performing theses skills and evaluated via the use of a validated checklist followed by a one-on-one hands-on educational session incorporating previously identified knowledge gaps. They were given feedback on their performance and repeated the procedures until they demonstrated competence. Pre- and post-workshop self-confidence in their ability to perform these skills.

Results: 37 first year residents completed the observed assessment. Strengths identified included airway assessment and basic steps of BMV. Common deficits identified included proper use of equipment and troubleshooting complications. 9 residents have completed the individualized workshop that was subsequently developed. There has been a statistically significant improvement in overall confidence between pre- and post-workshop assessments ($t(8) = -6.415$, $p<0.001$).

Conclusions: A one-on-one simulation workshop regarding BMV and neonatal intubation developed from direct observation of resident performance was associated with improved self-confidence in their ability to perform these skills. Next steps include a repeat assessment in the spring to determine if the improved confidence is sustained and if confidence is associated with improved procedural competence.

Significance: The findings of this study can benefit our future residents by improving confidence through use of a one-on-one simulation workshop.

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rP10 Social Network Analysis of First Year Medical Students' Study and Social Connections

Alexandra Frawley, BS, MCW-Central Wisconsin; Anna Wirta-Kosobuski, PhD, University of Minnesota Medical School- Duluth Campus; Amy Prunuske, PhD, MCW-Central Wisconsin Campus

Presenter Biosketch: Alexandra Frawley is a medical student at Medical College of Wisconsin-Central Wisconsin campus. She graduated from Viterbo University with a Bachelor of Science degree in biology in 2016.

Background: Medical school can be a challenging and time-consuming experience for many students as they need to balance learning with fulfilling their medical degree requirements. Due to this stressful and overwhelming environment, students may come to rely on their peers to support them during this journey.

Method: In this study, we completed a social network analysis of relationships students made among their peers. We identified both the study network and social network that assisted them during their first year of medical school. For three years, first year medical students at the University of Minnesota Medical School-Duluth campus were asked to complete a survey, six months into their education, where they identified up to three peers who they study with and three peers who they spend time with socially. The data was analyzed using Gephi software to create social networking graphs and to calculate average degree, average clustering coefficient, and average path length for social and study network.

Results: Degree measures the number of connections for each student by combining the number of students they identified with the number of students that identified them in the network. In all three classes, the average degree in the social network was greater than the number in the study network. The clustering coefficient indicates how likely the students were to form triangles through coidentification and for all three years, we found higher clustering in the study than in the social network.

Conclusions: Medical students have distinct social and study networks and medical school is important for forming not just study relationships but also complex social networks. Additional studies will analyze homophilia within the network, including variables such as gender, home state, academic performance, or medical specialty interest to see if people who had more similarities were more connected in their studying or social network groups.

Significance: The findings of this study are beneficial to medical education by illustrating how information is passed between students in a social setting compared to a study setting.

rP11 Do Medical Students Sleuth? Additional Validity of Patient- and Family-Centered Rounds Tool in Rating Presenter Empowerment Actions of Medical Students and Interns

Sarah Vepraskas, MD, MCW Department of Pediatrics; Jennifer Hadjiev, MD, MCW; Sara Lauck, MD, MCW; Anjali Sharma, MD, Children's Medical Group; Heather Toth, MD, MCW; Michael Weisgerber, MD, MCW

Presenter Biosketch: Sarah Vepraskas, MD is a hospitalist and assistant professor in the Department of Pediatrics. She created the Suspected Observable Presenter Empowerment Action Checklist (SO-PEACH), a valid and reliable tool used to identify presenter empowerment actions during Patient- and Family-Centered Rounds.

Background: Medical students and interns are the primary communicators during pediatric patient- and family-centered rounds (PFCR). Presenter empowerment actions (PEAs) represent behaviors that empower presenters during PFCR to deliver effective, patient- and family-centered care. Third year (M3) medical students are not formally trained on PEAs and their use of PEAs has not been measured. The objective of this study was to measure baseline frequency of PEAs and determine the validity of a PFCR presenter tool in evaluating M3 and intern PEAs.

Method: A prospective cohort study of PFCR presenters was conducted. Using a modified version of a previously validated PFCR tool (PEA-21), 6 trained observers assigned scores during PFCR on a 3-point scale in 4 domains: Spot-on (accurate data presentation), Style (effective communication skills), Synthesize (organized delivery), and Sleuth (strong family interaction). Inter-rater reliability and internal consistency were evaluated using the Intra-class correlation coefficient (ICC) and Cronbach's alpha. Using multivariate analysis, M3 and pediatric and medicine/pediatric intern mean score relationship with other variables was assessed.

Results: Following a two-month rater training, 461 presentations were observed during 50 PFCR sessions over 12 months. During first 6 months, 242 presentations during 21 PFCR sessions were observed with 2 trained observers. IRR was good with ICC of 0.83 ($p=0.001$). Cronbach's alpha revealed internal consistency overall (0.71) and within domains. Intern mean domain scores were higher than M3 mean scores with statistical difference only noted between intern and M3 mean Sleuth scores ($p=0.006$), effect size = 0.4. Spot-On, Style and Synthesize M3 scores improved the second half of the rotation, while the M3 mean Sleuth scores did not show this variation.

Conclusions: The PEA-21 showed strong validity properties including content, response process, and internal structure for medical students and interns. Students performed at a similar level to interns in all domains except for family interactions (Sleuth). Future interventions could include increased targeted training for students on family interactions on rounds.

Significance: A workshop to teach PEAs has been implemented in the pediatric clerkship. The PFCR tool can reliably be used to rate PEAs of medical students and interns to study this and other interventions.

rP12 First-Year Medical Resident Perceptions of Patient-Centered, Humanistic Aspects of a New Medical School Curriculum

Greg Kaupla, BBA, MCW Academic Affairs - Office of Measurement and Evaluation; Robert Treat, PhD, MCW; Dawn Bragg, PhD, University of South Dakota; Jose Franco, MD, MCW

Presenter Biosketch: Greg Kaupla is a Database Analyst II in Academic Affairs - Measurement and Evaluation where he works to compile, analyze and report data for numerous committees, student groups and other audiences. He also has experience in market research and survey design/ programming for groups throughout MCW.

Background: Retrospective examination of the patient-centered, humanistic aspects of a medical school curriculum is important to instruct future program improvements for next-generation learners. After the first year of resident medical training, interns are situated in an ideal timeframe to provide feedback to their medical school through self-reported surveys of their undergraduate curriculum.[1],[2] The purpose of this study is to analyze medical resident perceptions of their medical school education prior to and following the implementation of a new integrative medical school curriculum with enhanced early clinical experiences.[3]

Method: From 2008-16, MCW graduates were asked to voluntarily complete a graduate follow-up survey during the end of their first year of residency. Comparisons of residents were made between graduates of the traditional curriculum (N=311) and new Discovery curriculum (N=56). The evaluation asked residents to rate aspects of their medical training on a six-point Likert scale (1=did not experience/6=almost all of the time). Independent t-tests and Cohen's d effect sizes were used to compare mean differences between residents of the two curricula. Pearson correlations (r) and stepwise multivariate linear regression models were used to determine associative strength of predictors to outcomes.

Results: Significantly higher resident scores ($d=0.35$, $p<0.001$) in teaching a patient-centered approach to patients that respected their humanity were reported in the new Discovery curriculum (mean (sd)=5.27 (.67)) than the traditional curriculum (5.00 (.85)). Scores were also significantly higher (p.001) for the Discovery curriculum for the following items: providing understanding of the social, psychological, economic and cultural aspects of medicine [4.96 (.79) vs. 4.60 (.96), $d=0.41$]; A significant correlation ($r=0.7$, $p<0.001$) was reported between resident satisfaction and curriculum preparation. Inter-item reliability was alpha=0.93.

Conclusions: These findings provide analytical evidence that there were more favorable perceptions of the integrative Discovery curriculum by medical residents who completed their medical school education after its implementation.

Significance: Integrative medical school curricula provided higher levels of basic science knowledge and skills in empathetic, personalized care which predicted medical school graduate preparation and satisfaction.

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rP13 Delivering Feedback to Residents Using a Documentation Assessment Tool

Danita Hahn, MD, MCW Pediatrics; Julie Kolinski, MD, MCW; Heather Toth, MD, MCW; Michael Weisgerber, MD, MS, MCW; Caitlin Pilon, BA, MCW; Amalia Wegner, MD, MCW

Presenter Biosketch: Dr. Hahn completed medical school, as well as her pediatric residency and chief residency, at MCW. She is currently an Assistant Professor in the Department of Pediatrics and the Section of Pediatric Hospital Medicine. She is also an Associate Program Director for the Pediatric Residency Program.

Background: Feedback is a crucial element of resident education, and Pediatric Hospital Medicine (PHM) faculty strive to provide feedback to residents amidst multiple barriers. The use of a standardized tool to provide focused feedback on inpatient resident progress notes can make this process easier for faculty while providing a framework to improve the quality of feedback on documentation.

Method: The objectives of our study were to: 1) provide frequent, high quality faculty feedback on resident progress notes using a standardized tool, the Physician Documentation Quality Instrument 9-item version (PDQI9), 2) evaluate PHM faculty's perceived ease and effectiveness of this tool, and 3) analyze faculty clinical teaching evaluation scores before and after initiation of this process.

Results: Faculty were surveyed from February to December 2016 resulting in 45 responses (75% return rate). Survey data indicated that 62% of faculty gave feedback, with 73% spending 10 minutes or less. 50% of faculty perceived that resident notes improved and 73% felt that their own documentation improved. Faculty evaluation scores for providing timely and constructive feedback improved from 1.81 pre-intervention to 1.58 post-intervention (p value 0.008 using ANOVA) on a Likert Scale of 1 (Major Strength) to 5 (Major Weakness).

Conclusions: After launching this project, the majority of PHM faculty delivered feedback to residents on progress notes in 10 minutes or less and perceived improvement in the quality of both resident and faculty progress notes. Additionally, there were improvements in resident evaluation scores of faculty. Future steps include further analysis of the trajectory of resident PDQI9 scores and expanding this initiative to other inpatient pediatric services and to senior resident and student notes.

Significance: Use of the PDQI9 tool may aid in streamlining efficient and effective faculty feedback to residents regarding documentation and may contribute to improvements in faculty evaluation scores.

References: 1. Stetson, P. et al. 2012. Assessing Electronic Note Quality Using the Physician Documentation Quality Instrument (PDQI-9). Applied Clinical Informatics. 3(2): 164–174

rP14 Assessing Second Victim Syndrome among Emergency Medicine Physicians

Alicia Pilarski, DO, MCW; Morgan Schwoch, MSIII; Ramin Tabatabai, MD

Presenter Biosketch: Alicia Pilarski, DO is an Associate Professor for the Department of Emergency Medicine.

Background: Second Victim Syndrome (SVS) is a term used to describe the psychological distress experienced by health care providers after enduring a significant adverse clinical event or medical error. This syndrome can lead to negative outcomes including but not limited to guilt, anxiety, burnout and depression. This in turn can predispose the physician to provide decreased quality of care to future patients. In previous studies, it has been demonstrated that second victims are both under-recognized and under-supported. More research is needed to determine the most effective forms of support for second victims. With these goals in mind, this study aims to survey the awareness and prevalence of SVS in Emergency Medicine, as well as preferred forms of support for these providers.

Method: An IRB approved anonymous survey developed through Survey Monkey was distributed to the Council of Residency Directors (CORD) Emergency Medicine listserv from March 31st 2017-April 14th 2017. There were 19 questions with 11 questions specifically related to second victim syndrome.

Results: Of 530 survey responses, 320 identified themselves as attending physicians and 210 identified themselves as a resident or fellow. 56% of residents/fellows and 39% of attending physicians had never heard of the term Second Victim Syndrome. However, 65% of residents/fellows and 48% of attending physicians had experienced effects of this syndrome in the past year. Of those who considered themselves second victims, only slightly more than half, 58%, received institutional support. Colleague/peer support was utilized most frequently (87%), followed by support from a significant other (61%) and a close friend (40%). Supervisors, administrators and managers were not sought out as often to obtain support. After an adverse event, most respondents recovered after discussing with another individual. However, a small portion needed to take unscheduled time off work, or contemplated leaving the organization or the profession altogether. When asked what type of peer support would be most preferred following an adverse event, 94% of respondents would choose the support of a physician colleague within their same field of training.

Conclusions: This study found that SVS continues to be an under-recognized and under-supported condition that has an impact on the mental health of the physician, which in turn can have effects on patient care. Physicians in training are less aware of SVS and more likely to encounter an adverse event in their clinical practice. Most providers would prefer some form of support following an adverse event/medical error, and prefer the peer support of a colleague from within their own specialty.

Significance: Continued education and awareness about second victim syndrome will help Emergency Medicine providers recognize these emotional effects within themselves and other providers. This is especially important for residents and fellows who are most exposed to adverse events during their training. Recognition of this syndrome can help create a supportive environment for providers. Future support programs should include confidential peer support and access to additional resources for providers who are experiencing second victim syndrome.

rP15 Pediatric and Surgery Program Director Interpretations of Letters of Recommendation

Kris Saudek, MD, MCW Pediatrics; Robert Treat, PhD, MCW; Matthew Goldblatt, MD, MCW; Rachel Weigert, MD, MCW; Michael Weisgerber, MD, MS, MCW

Presenter Biosketch: Kris Saudek is an associate professor of pediatrics in the division of neonatology and associate program director for the pediatric residency program.

Background: Both the literature and results of the National Resident Matching Program Director survey indicate that residency program directors (PDs) rate letters of recommendation (LoRs) important when selecting applicants to both interview and rank in their programs. Literature describing PD perceptions of LoR features and unwritten "code" used by letter writers to describe applicants is sparse. The primary objective was to analyze pediatric and surgery PD interpretations of components of LoRs and identify areas of agreement or variation.

Method: Surveys were sent to pediatric and surgery residency PDs asking them to rate three categories of LoRs: commonly used phrases (e.g., "I give my highest recommendation" versus "I recommend"), letter features (e.g. length of letter and academic rank of letter writer), and applicant abilities/qualities (e.g. work ethic and professionalism) using a five-point Likert scale. For each PD group the phrases were grouped using principal components analysis (PCA). The mean scores of components were analyzed with repeated measures analysis of variance. The median Likert score differences between groups were analyzed with Mann-Whitney U-tests.

Results: Response rate was 43% for pediatrics and 53% for surgery. 78% of pediatric PDs and 85% of surgery PDs rated the LoR important in shaping their impression of a candidate and both rated "showed improvement" the most negative phrase. PCA generated three groups of phrases with moderate to strong correlation with each other that differed by specialty. The mean Likert score for each group from the PD rating was calculated. For both pediatrics and surgery there was a significant difference between all three pairs of mean scores (all $p<0.001$). Four letter features and three applicant abilities/qualities were rated significantly different between specialties (all $p<0.050$).

Conclusions: Pediatric and surgery residency PDs report that LoRs affect their impressions of candidates both positively and negatively. Key elements of LoRs include distinct phrases depicting tiers of capability. There were key differences between LoR preferences among pediatric and surgery residency PDs.

Significance: In this first national study of PDs' perceptions of LoRs, we help delineate what PDs want to read in LoRs and clarify PD interpretations of commonly used phrases in LoRs.

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rP16 Medical School Surgical Boot Camps and Suturing Skills: Is there a benefit?

Justin P. Dux, MD, MCW Surgery; Robert McMillan, MD, MCW; Philip Redlich, MD, PhD, MCW; Robert Treat, PhD, MCW; Matthew Goldblatt, MD, MCW; Thomas Carver, MD, MCW; Christopher Dodgion, MD, MSPH, MBA, MCW; Zane Prewitt, MD, MCW; Jacob Peschman, MD, MCW; Christopher Davis, MD, MCW; Jeremy Grushka, MDCM, MSc, McGill University Health Centre; Theresa Krausert, MCW; Brian Lewis, MD, MCW; Michael Malinowski, MD, MCW

Presenter Biosketch: Justin P. Dux, MD is a 4th year resident in the General Surgery Residency Program at the Medical College of Wisconsin. He received an undergraduate degree in Biomedical Engineering from Marquette University and completed medical school at the Medical College of Wisconsin.

Background: The transition from medical school to residency can be difficult and M4 surgical boot camps are designed to improve preparedness of students entering residency. We have previously reported a benefit of boot camps on suturing skills of incoming residents at our institution and now report on a second cohort. Our goal was to evaluate the impact of boot camps on intern suturing skills when measured during surgical residency orientation.

Method: 27 interns completed questionnaires over two-consecutive years. In June of 2016 and 2017, interns were evaluated on suturing (18 one-point items), knot tying (16 one-point items), overall performance (1 five-point item), and quality (1 five-point item) by three surgeons, blinded to the questionnaire results, using modified assessment forms published by the APDS/ACS for OSATS and global rating evaluation. Descriptive statistics are reported with means (Mn) and standard deviation (s). The association of skills is reported with Spearman rho (SpR) correlations and inter-rater reliability determined by intraclass correlation coefficients (ICC). Analysis generated with IBM® SPSS® 24.0.

Results: Over two years, 16 of 27 (59%) interns reported boot-camp training. In 2016, 6 of 12 interns with training had higher suturing scores. Scores in knot tying, overall performance, and quality did not reach statistical significance. In 2017, 10 of 15 interns with boot-camp training demonstrated no statistical difference in suturing, knot tying, overall performance, and quality. When analyzed in aggregate, scores in suturing, knot tying, overall performance, and quality demonstrated no statistical significance. There was significant correlation in all skill evaluations (SpR range=0.63-0.90), $p<0.001$) and ratings were consistent (ICC(2,1)=0.24-0.60, $p<0.030$).

Conclusions: Surgical interns that reported M4 boot-camp training prior to residency did not demonstrate a statistically significant advantage in suturing skills compared to those that did not have M4 boot-camp training. Further study is warranted to evaluate the benefit of boot camps on suturing skills of incoming surgical residents.

Significance: Surgical boot camps for senior medical students are designed to increase the clinical and technical competence of incoming interns. Further evaluation is needed to evaluate the benefit of boot camps.

rP17 Patient At Risk: Emergency Medical Service Providers' Opinions on Improving an Electronic Emergency Information Form for the Medical Care of Children with Special Health Care Needs in Wisconsin

Quinn Piibe, BA, MCW; Erica Kane, CHES, MPH, Children's Health Alliance of Wisconsin; Marlene Melzer-Lange, MD; Kathleen Beckmann, DO

Presenter Biosketch: Quinn Piibe is currently a second year medical student at the Medical College of Wisconsin doing EMS research. He has worked with Dr. Kathleen Beckmann and Children's Health Alliance of Wisconsin evaluating the Patient At Risk program.

Background: Patient at Risk (PAR) is an online database using an emergency information form (EIF) that parents of children with special health care needs (CSHCN) complete to store their child's medical and health related information. Emergency medical service (EMS) providers then access the EIF for medical emergencies, pre-hospital planning, and educational training. Because of their complex medical needs, CSHCN often require specialized health care that EMS providers may not be prepared to provide. PAR has sought to better prepare and educate EMS providers for treating CSHCN. PAR has been active for over 10 years; however use from patients and providers has been limited.

Method: Focus groups were held at 32 fire/ambulance houses in southeast and central Wisconsin, interviewing 146 EMS providers. The moderator transcribed answers to the following questions: • Have you heard of PAR? Have you used PAR? Why/Why not? • What barriers do you see to using PAR? • What changes would make you more likely to use PAR? • What changes to the EIF would better suit EMS needs? • How would you use PAR for patient care? • Do you think PAR is important? Why/why not? • Would PAR help you feel more comfortable treating CSHCN?

Results: 10.95% of EMS providers were aware of PAR. Many did not use PAR because of a lack of follow up or other barriers such as limited internet access, inconvenience, attending to more urgent responsibilities during calls, and not knowing when to use PAR. Solutions included technological changes, involving dispatch in PAR, and returning to a paper-based EIF. The EIF received very positive reviews with few other changes suggested. Providers would use PAR for pre-planning, training and education of providers, or searching for patient information. Most providers felt PAR was important because it would help them provide better care and feel more comfortable treating CSHCN.

Conclusions: EMS providers identified several problems with the PAR database and offered solutions. Most providers were excited about using PAR for pre-hospital training as well as using PAR on scene during a call. Several barriers still need to be overcome. Providers thought PAR would improve care for CSHCN.

Significance: Most EMS providers agree that PAR would be an effective tool to pre-plan and train using specific, local CSHCN patients they are likely to encounter on a call.

rP18 Give it a shot: Participation in a "just-in-time" immunization workshop followed by peer influenza vaccination is associated with improved resident confidence in their immunization skills

Amanda Rogers, MD, MCW Pediatrics; Michael Weisgerber, MD, MS, MCW Department of Pediatrics

Presenter Biosketch: Amanda Rogers is an assistant professor in the Medical College of Wisconsin Department of Pediatrics and an associate program director with the pediatric residency program. She has an interest in simulation education and is the director of the Pediatric Residency Simulation Education Program.

Background: The Accreditation Council for Graduate Medical Education Pediatric Program Requirements state that residents must demonstrate competence administering immunizations. Less than half of our graduates report feeling prepared to perform this procedure. According to Center for Disease Control and hospital policy, all residents must receive the influenza vaccine unless contraindicated. It can be logistically challenging to get their immunization due to schedule restrictions. A just-in-time (JIT) immunization workshop followed by peer influenza vaccination could provide an opportunity for residents to receive their vaccination at work and gain experience vaccinating in a supervised environment.

Method: We developed a voluntary influenza session that included a didactic review of the procedure and JIT simulated practice using a task trainer immediately followed by supervised peer influenza vaccination. All residents in our program were surveyed one-month post session rating their confidence administering immunizations on a 5-point Likert scale. We compared residents who had participated to those who had not. Mann Whitney U test was used to assess for differences between groups. Participating residents were also surveyed about their perceptions of the session.

Results: Approximately one third of residents participated in the session (N=30). On one month follow up, residents who participated were more likely to report feeling confident in their immunization skills than those who did not ($p=0.02$). All participants reported the experience was conducive to their learning.

Conclusions: A JIT immunization workshop followed by peer influenza vaccination provides an opportunity for residents to receive their required immunization at work and is associated with improved resident confidence in their procedural skills. Next steps include assessing if session implementation is associated with changes in the Accreditation Council for Graduate Medical Education graduate survey results and number of immunizations residents log.

Significance: A JIT immunization workshop followed by peer influenza vaccination is an effective way to give residents their required immunization and improve their confidence performing a required procedure.

rP19 Increasing Resident Pager Triage Education and Autonomy

Sarah Bauer, MD, MCW/CHW Pediatric Hospital Medicine; Caitlin Kaeppler, MD, MCW/CHW; Kavi Madhani, MD, MCW/CHW; Vanessa McFadden, MD, PhD, MCW/CHW; Rachel Weigert, MD, MCW/CHW; Kelsey Porada, MA, MCW

Presenter Biosketch: Sarah Bauer is a pediatric hospitalist at Children's Hospital of Wisconsin. She did her residency at the Medical College of Wisconsin and took on her hospitalist position in August 2016. She saw a need for structured pager triage training in residency and developed this project.

Background: Pediatric residents at MCW do not receive skill-building opportunities on pager triage for inpatient admissions. Yet by the time they become attending physicians, they are expected to be competent in triaging patients to appropriate hospital resources.[1] Medical education researchers have called for educational strategies that promote clinical reasoning and experiential learning.[2,3] Biondi et al recently found that allowing pediatric residents to triage admissions from the emergency department (ED) resulted in improved efficiency and no harm to quality of care.[4] With education and experience residents can learn how to triage admissions effectively and safely and improve ED satisfaction.

Method: This is a quality improvement study with educational interventions. Pediatric residents were surveyed regarding their skills and confidence with pager triage at baseline and after each night block. Residents received formal education with a module on standard admission criteria, step-by-step guide to pager triage, and example triage calls. From 5:30p to 6am residents shadowed the on-call hospitalist and/or ran admission calls from the ED. Interventions were initiated throughout the project including reminder emails, discussion at staff meetings, and use of phones to connect with the on-call hospitalist. ED providers were surveyed regarding their satisfaction and efficiency with this process.

Results: Residents reported an increased amount of pager triage training, more involvement in clinical decision making, higher confidence asking questions and requesting interventions from the ED, and more confidence in triage placement. Substantial increase of joint calls with the on-call hospitalist was noted (7% of calls at baseline to 90% by Block 8). 93% of residents who viewed the module reported they would be likely to refer to it in the future. The ED reported increased admitting process efficiency and satisfaction and a decrease in number of calls to admit a patient to the hospitalist service. Balancing measures of "no calls" to the admitting resident and resident workload remained the same.

Conclusions: Providing structured guidance and practice for pager triage improves the confidence and clinical decision-making skills of pediatric residents. In addition, this project increases the efficiency of the ED by reducing redundancy of separate calls to resident and attending. No change in balancing measures indicates this can be done safely in a large pediatric academic hospital. A limitation is that resident confidence and abilities typically improve throughout the academic year, making it difficult to determine how much improvement can be attributed to these educational interventions. Future directions include a required module, pre/post quizzes, and autonomous admitting resident pager triage.

Significance: Pager triage is utilized by subspecialists and general practitioners and is a skill every physician needs. No matter their field, pediatric residents will be prepared to effectively triage patients.

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