

Rami A. Ahmed, DO, MHPE, FACEP

Professor of Emergency Medicine

Indianapolis, Indiana

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CURRENT POSITIONS

Division Chief, Division of Simulation, Department of Emergency Medicine
2020-current

Simulation Fellowship Director
Indiana University School of Medicine
2018-current

Liaison for Simulation, Indiana University School of Medicine
2019-current

Core Faculty Member
Emergency Medicine Residency, Indiana University School of Medicine
2019-current

EDUCATION

Graduate Certificate Program in Implementation Science and Innovation
Indiana University School of Medicine
Clinical and Translational Sciences Institute
2020-2021

Master's in Health Professions Education (MHPE)
University of Illinois - Chicago College of Medicine, Chicago, IL
August 2015

Academic Fellowship in Medical Simulation
Gilbert Program in Medical Simulation, Tosteson Medical Education Center
Harvard Medical School, Boston, MA
July 2008 – June 2009

Emergency Medicine Residency Program
Northeast Ohio Medical University (NEOMED)
Summa Health System, Akron City Hospital, Akron, OH
Chief Resident July 2007 – June 2008
July 2005 – June 2008

Doctor of Osteopathic Medicine (DO)
Lake Erie College of Osteopathic Medicine (LECOM), Erie, PA
June 2001 – June 2005

Bachelor of Science in Biology
John Carroll University (JCU), University Heights, Ohio
August 1997 – May 2001

LICENSURE

& CERTIFICATION

Fellow of the American College of Emergency Physicians (**FACEP**)

American Board of Emergency Medicine (ABEM) Diplomat, 2009
Recertified, 2017.

Physician license

State of Indiana 2018-current

State of Ohio 2007-current

State of Massachusetts 2008-current

Certificate of Teaching and Learning in Medical Simulation, Massachusetts General Hospital -Institute of Health Professions, 2009

Institute for Medical Simulation, Comprehensive Simulation Workshop, Center for Medical Simulation, Cambridge, MA 2008

Institute Scholar, Harvard Macy Institute, Harvard Medical School Program for Educators in the Health Professions, 2009

MIT Sloan School of Management: Artificial Intelligence: Implications for Business Strategy. AI course completed. 6 weeks intensive. October 2018.

AAMC GME Leadership certificate 2017-2018. Washington, DC.

Leading in Health Systems: Integrating Effort, Improving Outcomes. Harvard School of Public Health. June 2017.

Emergency Medicine Basic Research Skills (EMBRs) Course. Dallas, TX., 2014

Lean Six Sigma Green Belt certification 2017 (development and execution of an orthopedic surgery boot camp)

Advanced Trauma Life Support Instructor (ATLS-I) (Active)

ATLS National Educator (I can independently teach the ATLS *instructor* course) (Active)

Ohio ACEP EMS Medical Director Course

Ohio Department of Public Safety EMS Instructor

Advanced Disaster Life Support Instructor (ADLS-I) (Active)

Advanced Cardiac Life Support Instructor (ACLS-I)

Pediatric Advanced Life Support Instructor (PALS-I)

Advanced Life Support for Obstetrics (ALSO) (Active)

Tactical Medic-Ohio Tactical Officers TEMS course

National Tactical Officers Association - Tactical Rescue Technician course

Nationally Registered Emergency Medical Technician (NREMT-B)

HAZMAT Level-C Provider

Neonatal Resuscitation Program (NRP) (Active)

Debriefing after simulation in healthcare (DASH) rater training workshop

PREVIOUS POSITION(S)

Simulation Medical Director, Interprofessional Practice and Education Center, Indiana
University School of Medicine
2019-2020

Simulation Medical Director
Simulation Fellowship Director
Summa Health System, Akron, OH
July 2009 – June 2018

Core Faculty
Department of Emergency Medicine
Summa Health System, Akron, OH
July 2009 – December 2016

Medical Director
Center for Simulation and Integrated Healthcare Education
Austen BioInnovation Institute in Akron (ABIA), Akron, OH
April 2010 – August 2013

ACADEMIC APPOINTMENTS

Assistant Editor, International Journal of Healthcare Simulation-Advances in Theory
&Practice, 2021-current

Co Editor-in-Chief, StatPearls, Simulation e-text book, 2019-current

Professor (*with tenure*) in Emergency Medicine (non-clinical)
Indiana University School of Medicine, 2018-current

Adjunct clinical faculty member, Michigan State University College of Osteopathic
Medicine. 2019-current.

Adjunct clinical faculty member, Pacific Northwest University of Health Sciences
College of Osteopathic Medicine. 2019-current.

Associate Professor in Emergency Medicine (non-clinical)
NEOMED, 2015 – 2018

Assistant Professor in Emergency Medicine
NEOMED, 2010 – 2015

Professional Development Advising Team (PDAT)
NEOMED, 2010 – 2014

Clinical Instructor in Surgery (Emergency Medicine)
Harvard Medical School, 2008 – 2010

**HOSPITAL AND
HEALTHCARE
ORGANIZATION
CLINICAL
RESPONSIBILITIES**

Attending Physician - Summa Emergency Associates (SEA)
Department of Emergency Medicine
Summa Health System, Akron, Ohio
2009 – 2018

Attending Physician - Emergency Medicine
Fisher-Titus Medical Center, Norwalk, Ohio
2013 – 2016

Attending Physician
Department of Emergency Medicine
Massachusetts General Hospital, Boston, Massachusetts
2008 – 2009

**MILITARY
SERVICE**

Combat Medical Specialist
U.S. Army – Fort Sam Houston, Texas
Medical Specialist Course
June-August 1998
Rank: Specialist (E-4)
1996-2004-Honorable Discharge

SWAT Tactical Medic/Physician
Akron Police Department SWAT Team
Providing Tactical and Medical Support during forced-entry drug raid/hostage situations
April 2006 – June 2008

**HONORS
AWARDS**

Attending Physician

SAEM Simulation Academy Distinguished Educator Award, 2020
ACEP National Faculty Teaching Award, 2017 (presented Washington, D.C.)
Crain's Cleveland Business "Who to watch in healthcare," 2016
Certificate of Appreciation- American College of Osteopathic Emergency Physicians for developing a national curriculum for medical simulation for emergency medicine residency programs, 2015
Elite Patient Service Award, 2013
Emergency Medicine Residency Teacher of the Year Award, 2012 – 2013
Elite Patient Service Award, 2012
30 for the Future Award, City of Akron, 2011
ABIA Sherpa Award for Excellence in Leadership, 2011
Emergency Medicine Residency Teacher of the Year Award, 2009 – 2010

Fellowship

Harvard Macy Education Scholar
Donald O'Hara Faculty Prize for Excellence in Teaching– Harvard Medical School, 2009
(*Top teaching award for Harvard Medical School faculty*)

Residency

Chief Resident of Emergency Medicine

Robert A. Liebelt, M.D. Medical Education Research Award

(Annual Award to best resident medical education research project)

Can-Do EMS Excellence Award

(Annual Award to Emergency Medicine Resident most dedicated to EMS training and education)

Medical School

President, MMSA

LECOM Ambassador

Ambassador Scholarship

Undergraduate

President, Alpha Epsilon Delta (Pre-Medical Honor Society)

President, Model United Nations

Caduceus Award (Most dedicated pre-medical student)

Diversity Scholarship

Military

U.S. Army Certificate of Achievement

(Award for passing the EMT-B Nationally Registry while on active duty as a combat medic)

Extra-curricular

Special Recognition Award, EUSMAA, 1998

Dedication to excellence in Martial Arts

Instructor of the Year, Eastern USA Martial Arts Association (EUSMAA), 1996

(Highest percentage of students directly under my training to make state and national competition with multiple students winning regional, state, and national competitions.)

PATENTS

PacerMan™

Co-Developed a novel transvenous pacemaker medical simulator.

Provisional patent (patent pending)

Title: Transvenous Pacemaker Simulation Task Training System

Serial No.: 61/378,200

Licensed technology to Simulab corporation. Seattle, WA.

ORGANIZATIONS

American College of Emergency Physicians

Society for Academic Emergency Medicine

Technology in Medical Education Committee

Simulation Academy Member

Society for Simulation in Healthcare

CONFERENCE PRESENTATIONS

Raj S, **Ahmed RA**, Daulton B, Trigo C, Martinez J, Joshi K, Chan C, Testa D, Hernandez J. Effect of Blindfolding on Closed-Loop Communication and Critical Action Completion During Simulated Resuscitations Using Rapid-Cycle Deliberate Practice. Society for Academic Emergency Medicine (SAEM) Simulation Fellows Forum. May 2021. Presented virtually by Dr. Sonika Raj. (*1st Place Award winner, best research design*).

Doos D, **Ahmed RA**, Barach P. PPE reuse and storage- Protecting HealthCare Workers. 50 minute oral presentation. Presented at the 2021 International Symposium on Human Factors and Ergonomics in Health Care. Virtual meeting, April 15, 2021.

Bona A., Falvo L., **Ahmed R.**, Cooper D. *Closing the Gender Gap: Creating a Simulation Confidence and Negotiation Course for Women in Graduate Medical Education*. Lecture presented at: 21st International Meeting on Simulation in Healthcare January 2021; virtual conference.

Bona A., Falvo L., **Ahmed R.**, Cooper D., Schroedle K. *Cycling through Difficult Conversations: Rapid-Cycle Deliberate Practice for Communication Education*. Lecture presented at: 21st International Meeting on Simulation in Healthcare, January 2021; virtual conference.

Falvo L., Bona A., **Ahmed R.**, Cooper D. *“Hey, Remember that Patient?” How to HEEAL: A Medical Error Disclosure Curriculum*. Lecture presented at: 21st International Meeting on Simulation in Healthcare, January 2021; virtual conference.

Falvo L., Bona A., **Ahmed R.**, Cooper D. *Speak Up!: Enforcing Closed-Loop Communication Through Blindfolded Codes*. Lecture presented at: 21st International Meeting on Simulation in Healthcare January 2021; virtual conference.

Boyer T, **Ahmed R**, Cartwright J, Mitchell S, Shablak D. Operations Workshop on High Fidelity Ventilation Simulator Setup and Use. Live workshop presented at: 21st International Meeting on Simulation in Healthcare January 2021; virtual conference.

Hughes P, Hughes K, Hughes M, Falvo L, Bona A, Doos D, **Ahmed R**. Does my personal protective equipment really work? A simulation-based approach. 60 minute video presentation. Presented at the 21st International Meeting on Simulation in Healthcare January 2021; virtual conference.

Mitchell S, Boyer T, **Ahmed R**, Cartwright J. Methodological Assessment of Mechanical and Manual Ventilation Training and Testing. Live workshop presented at: 21st International Meeting on Simulation in Healthcare January 2021; virtual conference.

Ahmed RA, Atkinson S, Auerbach M, Cook J, Fey M, Gordon J, Hock S, Joseph M, Okuda H, Palaganas J, Rizzolo M, Wong A. Speed Mentoring: Networking with National Leaders in Healthcare Simulation. 20th International Meeting on Simulation in Healthcare, San Diego, CA. January 20, 2020.

Bajaj K, Meguerdichian M, Nadir N, Cruz J, Reedy G, **Ahmed RA**, Walker K. Cognitive Load Theory to Establish a Simulation Fellowship Program. 20th International Meeting on Simulation in Healthcare, San Diego, CA. January 20, 2020.

Ahmed RA, Bajaj K, Cardell A, Cassara M, Meguerdichian M, Musits J, Smith MK, Wong N, Wong A, Szyld D. Simulation Fellowship Accreditation: Should we go there? 20th International Meeting on Simulation in Healthcare, San Diego, CA. January 20, 2020.

Hughes KE, Hughes PG, Cahir T, Plitt J, Bedrick E, Ng V, **Ahmed RA**. “Crisis resource management training: the blindfold code exercise.” American College of Emergency Physicians Scientific Assembly, Denver, CO. October 28, 2019. (Presenter: Kate Hughes, DO).

Ahmed RA, Romito L, Weber Z, Daulton B, Pfeifle A. “Rapid Cycle Deliberate Practice in Interprofessional Education.” Collaborating Across Borders (CAB VII). Indianapolis, Indiana. October 21, 2019.

Hughes PG, Atkinson SS, Jenkins MJ, Brown M, **Ahmed RA**. Evaluation of Technical Competency in Health Care Simulation Tool: A Modified Delphi Study. The Gathering of Healthcare Simulation Technology Specialists (SimGHOSTS). Miami, FL. July 30th-August 2nd, 2019. Accepted. (Presenter: Patrick G. Hughes, DO, MEHP and S. Scott Atkinson).

Hughes PG, Atkinson SS, Jenkins MJ, Brown M, **Ahmed RA**. Evaluation of Technical Competency in Health Care Simulation Tool: A Modified Delphi Study. Education Innovation Oral Abstracts. Johns Hopkins University Master of Education in Health Professions Conference, Baltimore, MD. July 26, 2019. (Presenter: Patrick G. Hughes, DO, MEHP).

Hughes PG, Atkinson SS, Jenkins MJ, Brown M, **Ahmed RA**. Evaluation of Technical Competency in Health Care Simulation Tool: A Modified Delphi Study. Innovation presentation at Society for Academic Emergency Medicine (SAEM). Las Vegas, NV. May 16th, 2019. (Presenter: Patrick G. Hughes, DO, MEHP).

Hughes KE, Hughes PG, Plitt J, Cahir T, Bedrick E, Ng V, **Ahmed RA**. “The blindfolded simulated code training exercise.” 19th International Meeting on Simulation in Healthcare, San Antonio, TX. January 29, 2019. (Presenter: Kate Hughes, DO).

Benner A, **Ahmed RA**, Ortiz-Figueroa F, Ballas D, Hughes PG, Riefkohl-Ortiz E, Gable B, Schmidt M, Yee J. Hot Topics Critical Care: Curriculum for Mechanical Ventilation in Critical Care. Presented at the 19th International Meeting on Simulation In Healthcare. San Antonio, TX. January, 2019. Presenter: Alma Benner, RT).

Macy R, Okuda Y, Strother C, Wong A, Nowicki T, **Ahmed RA**, Ng V, Rizzolo MA, Emlet L, Ng G, Gordon MA. Speed Mentoring: A networking event with simulation mentors and leaders. Presented at the 19th International Meeting on Simulation In Healthcare. San Antonio, TX. January, 2019.

Meguerdichian M, **Ahmed RA**, Bajaj K. Simulation Fellowship Assessment: Monitoring of Fellow Progression. Presented at the 19th International Meeting on Simulation In Healthcare. San Antonio, TX. January, 2019.

Rosasco J, McCarroll ML, Ahmed RA, Schwartz A, Gothard MD, Atkinson SS, Hughes PG, Cepeda Brito JR, Myers JG, and George RL. Medical Decision Making in the Physician Hierarchy: A Pedagogical Evaluation. Educating Leaders 2019, The American Association of Colleges of Osteopathic Medicine (AACOM) National Conference Washington, D.C. April 10-12, 2019. Accepted, November 30, 2018.

Hughes, A.M., Najafi, B., Rosen, M.A., & **Ahmed, R.** (2018, November). In S. Zajac (chair), *Sensor based assessment for learning and care quality: The new frontier*. A panel discussion to be presented at the American Medical Informatics Association 2018 Annual Meeting. San Francisco, CA.

Riefkohl-Ortiz E, Yee J, Gothard MD, Frey J, Hughes PG, Ballas D, **Ahmed RA**. Iatrogenic Critical Care Procedure Complication Boot Camp: A Simulation Based Pilot Study. Simulation fellow forum, Society for Academic Emergency Medicine (SAEM). Indianapolis, Indiana. May 17th, 2018. Presented by Riefkohl-Ortiz, E.

Benner A, **Ahmed RA**, Hammond J, Ballas D, Hughes PG, Riefkohl-Ortiz E, Khobrani A, Schmidt M, Yee J. (January 2018). Curriculum for Mechanical Ventilation in Critical Care. Pre-conference workshop conducted at the 18th International Meeting on Simulation In Healthcare. Los Angeles, CA.

Macy R, Okuda Y, Strother C, Wong A, Nowicki T, **Ahmed RA**, Ng V, Rizzolo MA, Emler L, Ng G, Gordon MA. Speed Mentoring: A networking event with simulation mentors and leaders. Presented at the 18th International Meeting on Simulation In Healthcare. Los Angeles, CA. January 16th, 2018.

Meguerdichian M, Wong N, **Ahmed RA** Bajaj K., Simulation Fellowship Assessment: Monitoring of Fellow Progression. Presented at the 18th International Meeting on Simulation In Healthcare. Los Angeles. January 16th, 2018.

Hughes P, Hughes K, **Ahmed RA**. "I can literally do this blindfolded: The blindfolded code training simulation exercise." ACOEP Scientific Assembly Oral Abstract Competition, Denver, CO. Nov. 5, 2017. (*First Place Award*).

Hughes P, Hughes K, **Ahmed RA**. "I can literally do this blindfolded: The blindfolded code training simulation exercise." Johns Hopkins University Master of Education in Health Professions Conference, Baltimore, MD. July 30, 2017.

Hughes P, Hughes K, **Ahmed RA**. "I can literally do this blindfolded: The blindfolded code training simulation exercise." Neurological Disorders Summit, San Francisco, CA. July 6, 2017.

Hughes PG, Hughes K, **Ahmed RA**. The blindfolded code training exercise. Educational Summit, Society for Academic Emergency Medicine (SAEM) 17. Orlando, FL. May 18th, 2017.

Build Your Simulation Training Program From Scratch. 17th International Meeting on Simulation in Healthcare. Orlando, FL. January 31, 2017.

Speed Mentoring: Formal Training, Masters & Certificate Affinity Group. 17th International Meeting on Simulation in Healthcare. Orlando, FL. January 30, 2017.

Diane Brown, Diane Christensen, **Rami Ahmed**. Developing Team Competencies Using TeamSTEPPS and simulation. OCONLL conference. Cleveland, OH. April 29th, 2016.

Research Results Presentation. *Quantifying Change In Mission Risk Associated With A Clinician Crew Medical Officer: A Pilot Study Of A Medical Judgment Pathway Metric*. 2016 Human Research Program Investigators' Workshop Galveston, TX. February, 2016.

Research Proposal Presentation. *Quantifying Change In Mission Risk Associated With A Clinician Crew Medical Officer: A Pilot Study Of A Medical Judgment Pathway Metric*. 2015 Human Research Program Investigators' Workshop Galveston, TX. January, 2015.

Gardner A, AbdelFattah K, Wiersch J, **Ahmed R**, Willis R. (April 2015). Embracing errors in simulation-based training: The impact of error training on retention and transfer of central venous catheter (CVC) skills. Surgical Education Week. Seattle, Washington.

Atkinson, S., **Ahmed, R.**, Gardner, AK, Gable, B, Hughes, P., Kridler, C., Zalewski, J., Tritchler, B. (January 2015) Bleeding to Blacklights 3: High Risk Simulations in Disaster & Infectious Disease. Workshop conducted at the 15th Annual Conference of the Society for Simulation in Healthcare. New Orleans, LA.

Atkinson, S., **Ahmed, R.**, Hughes, P., Kridler, C. (July 2014) Bleeding to blacklights: Procedures you did not know you could perform by manipulating your full-body simulator. Regional Simulation Conference (Sim Ops) of the Society for Simulation in Healthcare. Pittsburgh, PA.

Atkinson, S., **Ahmed, R.**, Gardner, AK, Gable, B, Khan, U., Kridler, C. (January 2014) Bleeding to blacklights 2: Bringing realism to trauma and surgery simulation. Workshop conducted at the 14th Annual Conference of the Society for Simulation in Healthcare. San Francisco, CA.

Atkinson, S., **Ahmed, R.**, Gable, B, Khan, U., Kridler, C. (January 2014) Bleeding to blacklights: Procedures you did not know you could perform by manipulating your full-body simulator. Workshop conducted at the 14th Annual Conference of the Society for Simulation in Healthcare. San Francisco, CA.

Atkinson, S, **Ahmed, R** (January 2013) Bleeding to blacklights: Procedures you did not know you could perform by manipulating your full-body simulator. Workshop conducted at the 13th Annual Conference of the Society for Simulation in Healthcare. Orlando, FL.

King, A., Holder, M., **Ahmed, R.** (January 2013) Error management training in health professions education. Podium presentation at the 13th Annual conference of the Society for Simulation in Healthcare. Orlando, FL.

Atkinson, S., **Ahmed, R.** (January 2012) Bleeding to blacklights: Procedures you did not know you could perform by manipulating your full-body simulator. Workshop conducted at the 12th Annual Conference of the Society for Simulation in Healthcare. San Diego, CA.

Conrad, M., Holder, M., **Ahmed, R.**, Atkinson, S., King, A. (January 2012) Transforming debriefing effectiveness through train the trainer format. Workshop conducted at the 12th Annual Conference of the Society for Simulation in Healthcare. San Diego, CA.

Ahmed, R., Atkinson, S., Jwayyed, S., Southern, S. (June 2011) Transvenous Pacemaker Training Without the Live Animal- Development of a Transvenous Pacemaker Simulator. Moderated presentation. Innovations in Emergency Medicine Education. Society for Academic Emergency Medicine. Boston, MA.

GRANTS

Emergency Equity Fund for Research, Indiana University School of Medicine

Award: \$2,500

Research on PPE re-utilization safety

Co-investigator with simulation fellow, Dr. Devin Doos

Feb 1, 2021

American Association of Colleges of Osteopathic Medicine

Research Grant

Telesimulation and Behavioral Health: Assessment of the integration of the Contextual Interview Observation Form (CIOFA) as a Learning Tool in Interprofessional Practice & Education- A Pilot study.

Co-investigator

Award: \$10,000

8/1/17-7/30/18

Summa Medical Simulation expansion and development FY 2015-2016 State of Ohio Capital Bill

Award: \$750,000

Innovations in Education Grant

Summa Health System Department of Emergency Medicine

Award: \$20,000

October 2013

Medical Education Grant

Summa Health System Department of Emergency Medicine

Award: \$5,000

July 2011

CONSULTATION

NASA/Zin technologies Human Research Program

Simulation Medical Decision-Making Study (SENSITIVE/UNCLASSIFIED)

September 2014- 2018

\$170,000

Inpatient Medical Services (IMS)

Procedural and Team Code training

2013

Humility of Mary Health Partners

How to develop your own OB/GYN simulation program, Train-the-trainer course

2013

Medline Industries

Clinical consultant/expert for usability study/product development for hemostatic agent

2013

Medline Industries

Clinical consultant/expert for usability study/product development for wound adhesive

2012

GUEST LECTURES

Telesimulation, telebriefing, telementoring, tele-what? Optimizing the use of simulation in a new digital communication era. Educational Grand Rounds Invited Lecturer, Baylor College of Medicine. July 7th, 2021.

Telesimulation: The future of simulation education. University of Maryland, Baltimore County, Department of Information Systems PhD program. Oct. 21, 2020.

World Health Innovation Summit, International Panel Member on “Early Best Practices on the Management of Covid-19.” August 1, 2020.

SAEM webinar: How to perform simulation during a pandemic. June 2, 2020.

Mass Casualty and Pandemic Preparedness, Disaster Day, Florida Atlantic University, Department of Emergency Medicine. March 3, 2020.

Trauma Simulation and Crisis Resource Management. Ahmed RA, Falvo L, Bona A, Montelauro N, Huffmann E, Lee NK. 1st Annual IU Health 360 Symposium for Trauma and Critical Care. Presented November 8th, 2019.

Trauma in the 3rd Trimester of Pregnancy and Perimortem C-section Simulation. Dept of OB/GYN. Presence Saint Joseph Hospital, Chicago, IL. October 18th, 2019.

Advanced Debriefing Workshop (6 hours). Level 3 Healthcare. New York, NY. September 24, 2019.

Crisis Resource Management and Situational Awareness. Indiana Society of Anesthesiologists. Indianapolis, IN. February 9th, 2019.

Incorporating simulation into trauma team education. Ohio Pediatric Trauma Symposium. Ahmed R, Biddell E. Akron, OH. Sheraton Suites. December 8, 2017.

Emergency Department Mass Casualty Treatment, Triage and Surge Capacity Management. Pennsylvania State University, Department of Emergency Medicine. Hershey, PA. October 2017.

Emergency Department Mass Casualty Treatment, Triage and Surge Capacity Management. Case Western Reserve/University Hospitals, Department of Emergency Medicine. Cleveland, OH. October 2017.

Crisis Resource Management and Situational Awareness. Lake Erie College. Painesville, OH. Physician Assistant Program. February 10th, 2017.

Emergency Department Mass Casualty Treatment, Triage and Surge Capacity Management. Canton, Ohio. NORTN conference. Pro Football Hall of Fame. October 14, 2016.

Characteristics and Core Curricular Elements of Medical Simulation Fellowships in North America
Symposium for Fellows in Health Care Simulation, New York, NY. Keynote speaker.
May 4th, 2015

“R” is for Readiness. Developing and Improving Your Hospital’s OB Emergency Simulation Program National Webinar for Premier Hospital Engagement Network
September 11, 2014

The Combative Patient
Ohio International Trauma Life Support Conference, Columbus, OH
March 2, 2013

Simulation: The Future of Medical Education
Department of Emergency Medicine, Rashid Hospital, Dubai, United Arab Emirates
January 7, 2013

Simulation: The Future of Medical Education
Department of Emergency Medicine, University Hospitals – Case Western Reserve University, Cleveland, OH October 2012

Medical Simulation and Trauma Team Training
General Surgery RPAC, Ohio University College of Osteopathic Medicine, Doctors Hospital, Columbus, OH
August 2010

Tactical Combat Casualty Care and Tactical EMS
Lecturer and SWAT Team Physician
Akron Police Department SWAT Team, Akron, OH
10 hours lecture, over 200 hours practical/tactical training

ABSTRACTS

Greaves SW, **Ahmed RA**, Hughes KE, Doos D, Clayton LM, Solano JJ, Alter SM, Echeverri S, Shih RD, Hughes PG. Utilization of Fluorescent Tracer in Personal Protective Equipment Training in the Era of Coronavirus Disease 2019. 50 minute podium presentation at The Gathering of Healthcare Simulation Technology Specialists (SimGHOSTS) USA 2021, Fort Wayne, IN. August 3-6, 2021.

Greaves SW, **Ahmed RA**, Hughes KE, Doos D, Clayton LM, Solano JJ, Alter S, Echeverri S, Shih RD, Hughes PG. Fluorescent Tracer in Personal Protective Equipment Training in the Era of Coronavirus Disease 2019. Oral presentation at Society for Academic Emergency Medicine (SAEM). Virtual meeting, May 13, 2021.

Mary Hughes, Brett Gerstner, Anna Bona, Lauren Falvo, Karen Schroedle, Dylan Cooper, Elisa Sarmiento, Cherri Hobgood, **Rami Ahmed**. “Adaptive Change in Simulation Education Delivery due to COVID-19: A pilot project.” Oral Presentation at ACOEP National Meeting, October 11, 2020, virtual presentation. Mary Hughes DO presenter. Second place winner.

Anton NE, Huffman EM, **Ahmed RA**, Cooper D, Athanasiadis DI, Cha J, Stefanidis D, Lee NK. Stress and Resident Interdisciplinary Team Performance: Results of a Pilot Trauma Simulation Program. 2020 ACS_AEI. Chicago, IL. March 12-14, 2020.

Huffman, E.M., & Anton, N.E., & Athanasiadis, D.I., & **Ahmed R.**, Cooper, D., & Stefanidis, D & Lee, N.K. Multidisciplinary Trauma Team Training with an Emphasis on Crisis Resource

Management Improves Residents' Non-Technical Skills. 2020 ACS_AEI. Chicago, IL. March 12-14, 2020.

Hughes KE, Hughes PG, Plitt J, Cahir T, Bedrick E, Ng V, **Ahmed RA**. Crisis Resource Management Training: The Blindfolded Resuscitation. *Annals of Emergency Medicine*. October 2019: Volume 74, Issue 4, Supplement, Page S98.

Hughes K, Hughes P, Bedrick E, Cahir T, Ng V, Plitt J, **Ahmed RA**. Advanced Closed-Loop Communication Training: The Blindfolded Resuscitation. 20th International Meeting on Simulation in Healthcare, San Diego, CA. January 21, 2020.

Soriano P, Wagers B, Kanis J, Abulebda K, Schwab S, **Ahmed R**, Lane C. "Improving Debriefing Practices after Critical Incidents in a Pediatric Emergency Department." Collaborating Across Borders (CAB)VII conference. Indianapolis, IN. October 21, 2019.

Rosasco J, McCarroll ML, **Ahmed RA**, Schwartz A, Gothard MD, Atkinson SS, Hughes PG, Cepeda Brito JR, Myers JG, and George RL. Medical Decision Making in the Physician Hierarchy: A Pedagogical Evaluation. *Educating Leaders 2019*, The American Association of Colleges of Osteopathic Medicine (AACOM) National Conference Washington, D.C. April 10-12, 2019. Accepted, November 30, 2018.

Ahmed RA Riefkohl-Ortiz E, Yee J, Gothard MD, Frey J, Hughes PG, Ballas D. GME Action Learning: Iatrogenic Critical Care Procedure Complication Boot Camp- A Simulation Based Pilot Study. Continuum Connections Meeting, GME Leadership Development Certificate Program, Association of American Medical Colleges (AAMC). Orlando, FL. April 28th, 2018. Presented by Ahmed, RA.

Khobrani A, Patel NH, George RL, McNinch NL, **Ahmed RA**. Pediatric trauma boot camp: a simulation curriculum and pilot study. Society for Simulation in Healthcare 2017. Presented January 2018, Los Angeles, CA.

Adams JH, Baker L, Cepeda J, Hughes P, Sangtani A, Liew Z, Gothard MD, Davis J, McCarroll ML, Silber A, Ahmed R. Management of maternal cardiac arrest in the third trimester of pregnancy: A simulation-based pilot study. *Obstetrics and Gynecology*. 2016 May;127:100S-101S.

Ahmed, R., Atkinson, S.S., Gable, D., Yee, J., Gardner, A. Coaching from the sidelines: Examining the impact of teledebriefing in simulation-based training. Society for Simulation in Healthcare 2014. Presented January 2015, New Orleans, LA.

Ataya, R., Dasgupta, R., Blanda R., Moftakhar, Y., Hughes, P., **Ahmed, R**. Emergency Medicine Residency Boot Camp: A curriculum and Pilot Study. American Medical Association Research Symposium. Presented November 7, 2014, Dallas, TX.

Gardner, A., **Ahmed, R**. Using Cognitive Psychology and Simulation Training to Enhance Surgical Team Performance. *Journal of the American College of Surgeons*. Vol. 219. Issue 3. Sep. 2014. Presented at the American College of Surgeons Clinical Congress, October 28, 2014. San Francisco, CA.

Hardy, W., Wilber, S., Frey, J., King, A., George, R., Holder Jr., M., **Ahmed, R**. Opening Emergency Department Preparedness: Evaluation through Medical Simulation. The University of Akron Student Innovation Symposium. April 6, 2012. Akron, OH.

Conrad M., Brown D., Chronister C., **Ahmed, R**. Interprofessional Simulation Begins

with Interprofessional Collaboration at the 10th Annual International Nursing Simulation/Learning Resources Center Conference June 15-18, 2011. Orlando, FL.

Ahmed, R., Beeson, M. Gerzina, H., Kyriakedes, C., Larson, R. A Pilot Study In The Use of High Fidelity Simulation To Improve Emergency Medicine Death Notification Skills. Society for Simulation in Healthcare 2008. January 2009 in Orlando, FL.

Gerzina, H., **Ahmed, R.**, Beeson, M., Rosenberger, M., Larson, R., Lopreiato, J., Flannagan, A. The Use of Simulation to Improve Death Notification Skills of Emergency Medicine Residents. Association of Standardized Patient Educators (ASPE), June 2008. San Antonio, Texas.

Duldner, J., Wood, K., Lada, R., **Ahmed, R.**, Palumbo, J., Acton, M. Hyperacute Management of Subarachnoid Hemorrhage. Society of Academic Emergency Medicine Research Forum 1999. Ann Arbor, MI.

JOURNAL PUBLICATIONS

1. Doos D, Barach P, Sarmiento E, **Ahmed RA**. Reuse of Personal Protective Equipment: Results of a Human Factors Study Using Fluorescence to Identify Self Contamination During Donning and Doffing. *Journal of Emergency Medicine*. 2022. In Press.
2. Hansen M, Harrod T, Bahr N, Schoonover A, Adams K, Kornegay J, Stenson A, Ng V, Plitt J, Cooper D, Scott N, Chinai S, Johnson J, Conlon LW, Salva C, Caretta-Weyer H, Huynh T, Jones D, Jorda K, Lo J, Mayersak R, Paré E, Hughes K, **Ahmed R**, Patel S, Tsao S, Wang E, Ogburn T, Guise JM. The Effects of Leadership Curricula With and Without Implicit Bias Training on Graduate Medical Education: A Multicenter Randomized Trial. *Academic Medicine*. 2021. In Press.
3. **Ahmed RA**, Wong AH, Musits AN, Cardell A, Cassara M, Wong NL, Smith MK, Bajaj K, Meguerdichian M, Szyld D. Accreditation of Simulation Fellowships and Training Programs: More checkboxes or elevating the field? *Simulation in Healthcare*. 2021. PMID: 34175883.
4. Daulton BJ, Romito L, Weber Z, Burba J, **Ahmed RA**. Application of a Simulation-Based Interprofessional Teamwork Assessment Tool (SITAT) to Individual Performance in a Team-Based Simulation. *Journal of Medical Education and Curricular Development*. August 2021. PMID: 34869901.
5. Lopez de Alda JX, Patel N, McNinch N, **Ahmed RA**. A Blindfolded Pediatric Trauma Simulation and Its Effect on Communication and Crisis Resource Management Skills. *Cureus*. 2021. PMID: 34912625.
6. Gable B, Misra A, Doos D, Hughes PG, Clayton LM, **Ahmed RA**. Disaster Day: A Simulation-Based Disaster Medicine Curriculum for Novice Learners. *Journal of Medical Education and Curriculum Development*. 2021. PMID: 34164580.
7. Hughes M, Gerstner B, Bona A, Falvo L, Schroedle K, Cooper D, Sarmiento E, Hobgood C, **Ahmed R**. Adaptive Change in Simulation Education: Comparison of effectiveness of a communication skill curriculum on death notification using in-person methods versus a digital communication platform. *AEM Education & Training*. 2021. PMID:34268463.

8. Huffman EM, Anton NE, Athanasiadis DI, **Ahmed RA**, Cooper DD, Stefanidis D, Lee NK. Multidisciplinary simulation-based trauma team training with an emphasis on crisis resource management improves residents' non-technical skills. *Surgery*. 2021. PMID:33858682.
9. Anton NE, Huffman EM, **Ahmed RA**, Cooper, DD, Athanasiadis DI, Cha J, Stefanidis D, Lee NK. Stress and resident interdisciplinary team performance: results of a pilot trauma simulation program. *Surgery*. 2021. PMID:33867269.
10. Barach P, **Ahmed R**, Nadel ES, Hafferty F, Philibert I. COVID-19 and Medical Education: Risks, Benefits and Institutional Obligations During a Global Pandemic. *Mayo Clinic Proceedings*. January 2021. PMID: 33413818.
11. Wong AH, **Ahmed RA**, Ray JM, Khan H, Hughes PG, McCoy CE, Auerbach MA, Barach P. Supporting the Quadruple Aim Using Simulation and Human Factors During COVID-19 Care. *American Journal of Medical Quality*. Feb 2021. PMID: 33830094.
12. Hanke RE, Ponsky TA, Garrison AP, Levitt MA, Dickie BH, Casar Berazluce AM, Gibbons AT, Abdulhai SA, **Ahmed RA**. Can Complex Surgical Interventions Be Standardized? Reaching International Consensus on Posterior Sagittal Anorectoplasty Using a Modified-Delphi Method. *Journal of Pediatric Surgery*. 2021. PMID: 33483103.
13. Auerbach MA, Abulebda K, Bona AM, Falvo L, Hughes PG, Wagner M, Barach PR, **Ahmed RA**. A National US Survey of Pediatric Emergency Departments Coronavirus Pandemic Preparedness. *Pediatric Emergency Care*. January 2021. PMID: 33394945.
14. Abulebda K, **Ahmed RA**, Auerbach MA, Bona AM, Falvo L, Hughes PG, Gross IT, Sarmiento EJ, Barach PR. A National Preparedness Survey of Pediatric Intensive Care Units with Simulation Centers During the Coronavirus Pandemic. *World Journal of Critical Care*. October 2020. PMID: 33384950.
15. Rosasco J, Hanson Z, Kramer J, Steele L, Beachy B, Gothard MD, **Ahmed R**, McCarroll ML. A Randomized Study using Telepresence Robots for Behavioral Health in Interprofessional Practice & Education. *Journal of Telemedicine and e-health*. August 2020. PMID:33090088.
16. Hughes PG, Hughes KE, Hughes MJ, Weaver L, Falvo EF, Bona AM, Cooper D, Hobgood C, **Ahmed RA**. Setup and Execution of the Rapid Cycle Deliberate Practice Death Notification Curriculum. *Journal of Visualized Experiments*. Aug 2020. PMID: 32831312.
17. Hughes M, Gerstner B, Bona A, Falvo L, Hobgood C, **Ahmed RA**. Death Notification; a digital communication platform for simulated patient-based training with medical students. *BMJ Simulation & Technology Enhanced Learning*. September 2020. In Press.
18. Turner JS, Falvo LE, **Ahmed RA**, Ellender TJ, Corson-Knowles D, Bona AM, Sarmiento EJ, Cooper DD. Effect of an Aerosol Box on Intubation in Simulated Emergency Department Airways: A Randomized Crossover Study. *Western Journal of Emergency Medicine*. September 2020. PMID:33052809.
19. Mcquown C, **Ahmed RA**, Hughes PG, Ortiz-Figueroa F, Drost J, Brown DK, Fosnight S, Hazelett S. Creation and Implementation of a Large-Scale Geriatric Interprofessional Education Experience. *Current Gerontology and Geriatrics Research*. July 2020. PMID: 32774359.

20. Boyer T, Mitchell SA, Cartwright JF, **Ahmed RA**. Innovative Use of High-Fidelity Lung Simulators to Test a Ventilator Splitter Device. *Anesthesia & Analgesia*. June 2020. PMID: 32496430.
21. Cartwright J, Boyer T, Hamilton M, **Ahmed RA**, Mitchell SA. Rapid prototype feasibility testing with simulation: improvements and updates to the Taiwanese “aerosol box.” *Journal of Clinical Anesthesia*. June 2020. PMID: 32505688.
22. Wipprecht S, Wagner J, Bona A, Falvo L, **Ahmed RA**. Remodulin Pump Failure: An Emergency Medicine Simulation Scenario. *Cureus*. May 2020. PMID: 32582484.
23. Hughes PG, Hughes KE, **Ahmed RA**. Does my PPE really work? A simulation based approach. *Medical Education*. March 2020. PMID: 32333405.
24. Rosasco J, McCarroll M, Gothard D, Myers J, Hughes P, Schwartz A, George R, **Ahmed RA**. Medical Decision Making in the Physician Hierarchy: A Pilot Pedagogical Evaluation. *Journal of Medical Education and Curricular Development*. March 2020. PMID: 32656357.
25. **Ahmed RA**, Weaver L, Falvo L, Bona A, Poore J, Schroedle K, Cooper D, Sarmiento E, Hughes M, Hobgood C. Rapid Cycle Deliberate Practice: Death Notification. *Clinical Teacher*. March 2020. PMID: 32472732.
26. Niederriter J, Hovland C, Hazelett S, Whitford M, Drost J, Brown D, Morgan A, Kropp D, Sanders M, Gareri M, Fosnight S, Radwany S, McQuown C, **Ahmed RA**. Using the Constructivist/Active Learning Theoretical Framework to develop and test a simulation-based interprofessional geriatric training curriculum. *Journal of Interprofessional Education & Practice*. Jan 2020. In Press.
27. Gardner A, **Ahmed RA**. Industrial and Organizational Psychology in Medical Simulation. *StatPearls*. Jan 2020. PMID: 31869125.
28. Hughes K, Hughes P, Cahir T, Plitt J, Ng V, Bedrick E, **Ahmed RA**. Advanced closed-loop communication training: the blindfolded resuscitation. *BMJ Simulation & Technology Enhanced Learning*. 2019. In Press.
29. Hernandez J, Frallicciardi A, Nadir N, Gothard MD, **Ahmed RA**. Development of a Simulation Scenario Evaluation Tool (SSET): A Modified Delphi Study. *BMJ Simulation & Technology Enhanced Learning*. 2019. In Press.
30. Gable B, Ballas D, **Ahmed RA**. Enhancing simulation education using expired materials. *BMJ Simulation & Technology Enhanced Learning*. 2019. In Press.
31. Meguerdichian M, Bajaj K, Walker K, Cheng A, **Ahmed RA**. Simulation Fellowships: Survey of Current Summative Assessment Practices. *Simulation in Healthcare*. 2019. PMID: 31596770.
32. **Ahmed RA**, Botsch A, Ballas D, Benner A, Hammond J, Schnick T, Khobrani A, George R, Polansky M. Advanced Practice Provider Critical Care Boot Camp: A Simulation-Based Curriculum. *Journal of Medical Education and Curricular Development*. 2019. PMID: 31001592.
33. Abulebda K, Hocutt G, Gray BW, Slaven JE, Malin S, **Ahmed RA**, Wetzel E, Medsker BH, Byrne BJ. Development and Validated Checklists to Evaluate Clinical Specialists in Pediatric

- ECMO Emergencies. *American Society for Artificial Internal Organs Journal*. 2019. PMID: 30973401.
34. Hughes PG, Hughes K, **Ahmed RA**. Setup and Execution of the Blindfolded Code Training Exercise. *Journal of Visualized Experimentation*. 2019. In Press. PMID: 30985745.
 35. **Ahmed RA**, Boyer T. Endotracheal Tube (ET). *StatPearls*. 2019. PMID: 30969569.
 36. Abulebda K, Whitfill T, Montgomery EE, Kirby ML, **Ahmed RA**, Cooper DD, Nitu ME, Auerbach MA, Lutfi R, Abu-Sultaneh S. Improving Pediatric Diabetic Ketoacidosis Management in Community EDs Using. Simulation-Based Collaborative Improvement Program. *Pediatric Emergency Care*. 2019. PMID: 30870337.
 37. Ballas DA, Cesta M, Gothard D, **Ahmed R**. Emergency undocking Curriculum in Robotic Surgery. *Cureus*. 2019. PMID: 29863667.
 38. Hughes PG, Atkinson SS, Brown M, Jenkins M, **Ahmed RA**. Evaluation of Technical Competency in Healthcare Simulation (E-TeCHS) tool: A Modified Delphi Study. *BMJ Simulation & Technology Enhanced Learning*. 2019. In press.
 39. Hughes PG, Hughes KE, **Ahmed RA**. Setup and Execution of the Blindfolded Code Training Exercise. *Journal of Visualized Experiments*. 2019. PMID: 30985745.
 40. Riefkohl-Ortiz E, Yee J, Gothard MD, Frey J, Hughes PG, Ballas D, **Ahmed RA**. Iatrogenic Critical Care Procedure Complication Boot Camp: A Simulation Based Pilot Study. *AEM Education and Training*. 2019. PMID: 31008431.
 41. **Ahmed RA**, Hughes PG, Gardner AK. Simulation scenario rehearsal: The key to successful and effective simulations. *BMJ Simulation & Technology Enhanced Learning*. 2018.
 42. Brown D, Wong A, **Ahmed RA**. Evaluation of simulation debriefing methods with interprofessional teams. *Journal of Interprofessional Care*. 2018. PMID: 30024297.
 43. Gardner AK, DW Gee, **Ahmed RA**. Entrustable Professional Activities (EPA's) for simulation directors. *Journal of Surgical Education*. 2018. PMID: 29653840.
 44. **Ahmed RA**, Hughes PG, Wong A, Gable BD, Gray K, Ballas D, Khobrani A, Selley RD, McQuown C. Iatrogenic emergency medicine procedure complications and associated troubleshooting strategies: a narrative review. *International Journal of Health Care Quality Assurance*. 2018. PMID: 30415624.
 45. Ciullo A, Yee J, Frey JA, Gothard MD, Benner A, Hammond J, Ballas D, **Ahmed RA**. Telepresent mechanical ventilation training versus traditional instruction: A simulation- based pilot study. *BMJ Simulation & Technology Enhanced Learning*. 2018.
 46. Ballas D, Cesta M, Roulette GD, Rusnak M, **Ahmed RA**. Emergency undocking in robotic surgery: A simulation curriculum. *Journal of Visualized Experiments*. 2018. In Press. PMID: 29863667.
 47. Yee J, Benner A, Hammond J, Malone B, Fuenning C, George R, **Ahmed RA**. Mechanical ventilation boot camp curriculum. *Journal of Visualized Experiments*. 2018. PMID: 29578514.

48. Hughes PG, **Ahmed RA**. The Blindfolded Trauma Team Resuscitation: A strategy for improved leadership and communication. *BMJ Simulation & Technology Enhanced Learning*. 2017.
49. **Ahmed RA**, Blanda M, Jwayyed S, Stiffler K, Nielson J, Southern A, McQuown CM. When the business of healthcare overshadows the value of academic faculty: A community's loss of a residency program. *American Journal of Emergency Medicine*. Sep 2017. PMID: 28964583.
50. Gable B, **Ahmed RA**. A simulation-based interprofessional conference: A focus on patient handoffs and critical communication. *BMJ Simulation & Technology Enhanced Learning*. 2017.
51. Khobrani A, Patel NH, George RL, McNinch NL, **Ahmed RA**. Pediatric trauma boot camp: a simulation curriculum and pilot study. *Emergency Medicine International*. 2018. PMID: 29535873.
52. Kenyhercz WE, Perez JL, Wolfe AN, Starkey MR, Bagnoli III DJ, Ozgur AF, Ciullo A, **Ahmed RA**. Trauma Resuscitation in a Left Ventricular Assist Device Patient: An Emergency Medicine Simulation Scenario. *Cureus*. 2017. PMID: 29250473.
53. Poland S, Frey JA, Khobrani A, Ondrejka JE, Ruhlin MU, George RL, Gothard MD, **Ahmed RA**. Telepresent FAST exam training versus traditional training for medical students: A simulation-based pilot study. *Journal of Ultrasound in Medicine*. 2017. PMID: 29388234.
54. McCarroll M, **Ahmed RA**, Schwartz A, Gothard MD, Atkinson S, Hughes PG, Cepeda Brito J, Assad L, Myers J, George R. Medical Judgment Analogue Studies with Applications to Spaceflight Crew Medical Officers. *BMJ Simulation & Technology Enhanced Learning*. 2017. PMID: 29354280.
55. Hughes PG, Cepeda Brito J, **Ahmed RA**. Training the trainers: A survey of simulation fellowship graduates. *Canadian Medical Education Journal*. June 2017. PMID: 29098050.
56. **Ahmed RA**. Our first simulator-A fond farewell. *Academic Medicine*. 2017. PMID: 28654538.
57. **Ahmed RA**, McCarroll M, Schwartz A, Gothard MD, Atkinson S, Hughes PG, Cepeda Brito J, Assad L, Myers J, George R. Development, Validation, and Implementation of a Medical Judgment Metric. *Medical Decision Making Policy & Practice*. 2017. PMID: 30288425.
58. **Ahmed RA**, Hughes K, Hughes PG. The blindfolded code training exercise. *The Clinical Teacher*. 2017. PMID: 28382769.
59. **Ahmed RA**, Hughes PG. Simulation Directors as Improvement Leaders. *Physician Leadership Journal*. Jan-Feb 2017. PMID: 30571895.
60. **Ahmed RA**, Frey JA, Hughes PG, Tekian A. Simulation Fellowship Programs in Graduate Medical Education. *Academic Medicine*. June 2017. PMID:28590944.
61. Ballas D, Graham JJ, **Ahmed RA**. Circumcision training model: assembly and use. *BMJ Simulation & Technology Enhanced Learning*. 2017.
62. Cepeda Brito J, Hughes PG, Firestone K, Ortiz Figueroa F, Johnson K, Ruthenburg T, McKinney R, Gothard MD, **Ahmed RA**. NRP Rolling refresher: Maintaining Chest

- Compression Proficiency through the use of Simulation Based Education. *Advances in Neonatal Care*. 2017. PMID: 28195835.
63. Maarouf A, McQuown C, Frey J, **Ahmed RA**, Derrick L. Iatrogenic spinal cord injury in a trauma patient with ankylosing spondylitis. *Prehospital Emergency Care*. 2017. PMID:28103119.
 64. Galust H, Oliverio MH, Giorgio DJ, Espinal AM, **Ahmed R**. Necrotizing Fasciitis: An Emergency Medicine Simulation Scenario. *Cureus*. Aug 2016. PMID: 27733963.
 65. Adams J, Cepeda Brito JR, Baker L, Hughes PG, Gothard MD, McCarroll ML, Davis J, Silber A, **Ahmed RA**. Management of Maternal Cardiac Arrest in the Third Trimester of Pregnancy: A Simulation-Based Pilot Study. *Critical Care Research and Practice*. July 2016. PMID: 27555967.
 66. **Ahmed RA**, Atkinson SS, Gable B, Yee J, Gardner AK. Coaching From the Sidelines: Examining the Impact of Teledebriefing in Simulation-Based Training. *Simulation in Healthcare*. October 2016.(11)5:334-339. PMID: 27388866.
 67. **Ahmed RA**, Frey J, Gardner A, Gordon JA, Yudkowsky R, Tekian A. Characteristics and core curricular elements of medical simulation fellowships in North America. *Journal of Graduate Medical Education*. May 2016. PMID: 27168898.
 68. Gardner AK, Ritter EM, Paige JT, **Ahmed RA**, Fernandez G, Dunkin BJ. Simulation-Based Selection of Surgical Trainees: Considerations, Challenges, and Opportunities. *Journal of the American College of Surgeons*. September 2016: 223(3):530-536. PMID: 27214775.
 69. Yee J, Fuenning C, George R, Hejal R, Haines N, Dunn D, Gothard MD, **Ahmed RA**. Mechanical Ventilation Boot Camp: A Simulation-Based Pilot Study. *Critical Care Research and Practice*. 2016 February. PMID: 26949545.
 70. **Ahmed R**, Hughes PG, Friedl E, Ortiz Figueroa F, Cepeda Brito JR, Frey J, Birmingham LE, Atkinson SS. A Novel Simulation Technician Laboratory Design: Results of a Survey-Based Study. *Cureus*. March 2016: 16;8(3):e534. PMID: 27096134.
 71. Ortiz Figueroa F, Moftakhar Y, Dobbins IV AL, Khan R, Dasgupta R, Blanda R, Marchand T, **Ahmed RA**. Trauma Boot Camp: A Simulation-Based Pilot Study. *Cureus*. 2016 January; 8(1): e463. PMID: 26929890.
 72. Hughes PG, Crespo M, Maier T, Whitman A, **Ahmed RA**. Ten tips for maximizing the effectiveness of emergency medicine procedure labs. *Journal of the American Osteopathic Association*. June 1st 2016. PMID: 27168898.
 73. Gardner AK, Abdelfattah K, Wiersch J, **Ahmed RA**, Willis RE. Embracing Errors in Simulation-Based Training: The Effect of Error Training on Retention and Transfer of Central Venous Catheter Skills. *Journal of Surgical Education*. Nov-Dec 2015: 72(6):158-162. PMID: 26362712.
 74. **Ahmed RA**, Damore Dr, Viti JF, Hughes PG, Miesle R, Ataya R, Atkinson SS, Gable B. A Pilot Curriculum to Integrate Standardized Patient Simulation into Clinical Pastoral Education. *American Journal of Hospice and Palliative Care*. March 2015. PMID: 25753183.

75. Ataya R, Dasgupta R, Blanda R, Moftakhar Y, Hughes PG, **Ahmed RA**. Emergency Medicine Residency Boot Camp Curriculum: a Pilot Study. *Western Journal of Emergency Medicine*. 2015 March; 16(2):356-361. PMID: 25834687.
76. Khan U, Atkinson SS, Gable BD, Gardner AK, **Ahmed RA**. Initial validation of a modified suction task training system. *Canadian Journal of Respiratory Therapy*. 2015 January; 51(1):13-17. PMID: 26078623.
77. Gardner AK, **Ahmed RA**. Transforming trauma teams through transactive memory: How simulation can enhance performance. *Simulation & Gaming*. Published online October 2014. DOI: 10.1177/1046878114547836
78. **Ahmed RA**, Gardner AK, Atkinson SS, Gable BD. Telebriefing: Connecting Learners to Faculty. *Clinical Teacher*. 2014 July; 11(4): 270-3. PMID: 24917095.
79. Gable BD, Gardner AK, Bhalla, MC, Celik, DH, and **Ahmed RA**. Improving Bariatric Patient Transport and Care with Simulation. *Western Journal of Emergency Medicine*. 2014 March; 15(2):199-204. PMID: 24672612.
80. Gardner AK, **Ahmed RA**, George RL, Frey JA. In Situ Simulation to Assess Workplace Attitudes and Effectiveness in a New Facility. *Simulation in Healthcare*. 2013 Dec; 8(6): 351-8. PMID: 24096917.
81. King A, Holder M, **Ahmed RA**. Errors as Allies: Error Management Training in Health Professions Education. *BMJ Quality and Safety*. June 2013. 22(6): 516-9. PMID: 23293120.
82. King A, Conrad M, **Ahmed RA**. Improving Collaboration Among Medical, Nursing, and Respiratory Therapy Students through Interprofessional Simulation. *Journal of Interprofessional Care*. 2013 May; 27(3): 269-71. PMID: 23067325.
83. Gordon JA, Hayden EM, **Ahmed RA**, Pawloski JB, Khoury KN, Oriol NE. Early Bedside Care During Preclinical Medical Education: Can Technology-Enhanced Patient Simulation Advance the Flexnerian Ideal? *Academic Medicine*. 2010 Feb; 85(2): 370-7. PMID: 20107370.

BOOK CHAPTERS Ohio EMS Medical Directors' Course book 2014.

- Chapter IX: *Adult Education*

5 Minute Emergency Medicine Consult, 5th edition (2015 edition):

- Book Chapter: *Cushing's syndrome*
- Book Chapter: *Hyperparathyroidism*
- Book Chapter: *Hypoparathyroidism*

5 Minute Emergency Medicine Consult, 6th edition (2019 edition):

- Book Chapter: *Cushing's syndrome*
- Book Chapter: *Hyperparathyroidism*
- Book Chapter: *Hypoparathyroidism*

- *Optimizing Interprofessional Education with In Situ Simulation*. Gardner AK, DeSandro S, Pillow MT, **Ahmed RA**. In Paige JT, Garbee DD, Bonanno, Sonesh S (Eds.). *Interprofessional Team Training and Simulation*. (In Press, 2020).

MANUSCRIPTS UNDER REVIEW:

-Submitted

1. Blakemore task trainer design and use, submitted (2021), *WestJem*
2. EM/Peds EMS simulation study (IU)
3. Mechanical ventilation simulation training video publication (ATS Scholar)
4. Geriatric IPE curriculum
5. Scope of practice article (Purdue)

MANUSCRIPTS IN PROGRESS (Data collection or writing phase):

1. PEM/PICU curriculum write-up with Dept. of Pediatrics (MedEdPortal). 3 year study, submit 2021.
2. Simulation technical skills for the Simulation fellow (curriculum development in process).
3. Simulation trauma team training with Dept. of surgery using wearable physiologic sensors
4. Simulation closed loop communication study using buzzer audio technology (Ohio State University).
5. Upper GI bleed study and training of Blakemore/Minnesota tube (Ohio State University).
6. Disaster PPE training study (Florida Atlantic University)
7. Hydroxychloroquine overdose sim case (MedEd portal)
8. Interprofessional and gender training and evaluation video review (Oregon-OHSU)
9. Female executive coaching bootcamp simulation curriculum (IU)
10. Error disclosure HEALL curriculum (IU)
11. Future of simulation education qualitative study #1
12. Future of simulation education qualitative study #2
13. PPE contagion spread/Human Factors of reused PPE study (IU)
14. National Simulation In situ quality improvement Delphi checklist validation
15. RCDP blindfold closed loop communication training (UTSW)
16. PPE narrative review article (?2)
17. Wellness in Medicine Series (3 manuscripts)
18. DEI microaggression curriculum study
19. Covid cardiogenic shock study
20. Pediatric respiratory situational awareness study
21. Pediatric ECMO 360 VR video study

FORMALLY SUPERVISED TRAINEES/ADVISEES

- 2011-2014** **Brad Gable, MD, MS, System Medical Director, Medical Simulation, OhioHealth- Columbus, Ohio.** Mentored as my medical simulation fellow at Summa Health, with resultant manuscript. Continued mentoring as my Associate Simulation Program Director for an additional year that led to the completion of 3 additional manuscripts before his leadership position in Columbus. Dr. Gable has gone onto lead several cutting edge programs for the OhioHealth system and win several teaching awards.
- 2011-2013** **Aimee (King) Gardner, Ph.D., Assistant Dean of Research & Evaluation, School of Allied Health Sciences, Baylor College of Medicine, Houston, TX.** Mentored as a Ph.D. candidate and training consultant for two years with resultant manuscript. Dr. Gardner went on to UTSW in Dallas, TX where she took the role as Assistant Director of Education for the department of surgery. She published over 35 manuscripts in 3 years and has established herself as a national leader in surgical simulation. She was

awarded the Norton Rose Fulbright Faculty Excellence Award for Educational Research in 2020.

- 2013-2014** **Umbar Khan, MD, *Medical Simulation Program Director, King Fahad Royal Hospital-Riyadh, Saudi Arabia.***
Mentored as my medical simulation fellow at Summa Health, with resultant manuscript. Dr. Khan has become a national resource to the Saudi Ministry of Health.
- 2014-2017** **Patrick Hughes, DO, MEHP, *Emergency Medicine Simulation Director, Florida Atlantic University-Boca Raton, FL.***
Mentored as my medical simulation fellow at Summa Health, with resultant manuscripts and as his master's thesis advisor. Continued mentoring as my Associate Simulation Program Director for an additional year that led to the completion of 3 additional manuscripts before his leadership position in Boca Raton. He completed his Master of Education in Health Professions (MEHP) at Johns Hopkins and now serves as faculty in the master's program at Johns Hopkins. He was awarded the SAEM Simulation Academy Research Award in 2020.
- 2014-2016** **Jose Cepeda Brito, MD, *Simulation Faculty, University of Kansas. Wichita, KS.***
Mentored as my medical simulation fellow at Summa Health for 18 months, with resultant manuscripts. Dr. Cepeda worked with our team during our NASA medical decision-making research project and will be a co-author on the 2 studies under review. He is serving out a 5 year term in an underserved area as an EM physician for his J-1 Visa requirements to earn a Green Card to remain in the United States.
- 2015-2016** **Fabiana Ortiz-Figueroa, MD, *Simulation Faculty, Duke University, Durham, NC.***
Mentored as my medical simulation fellow at Summa Health, with resultant manuscripts. Dr. Ortiz-Figueroa led a project with a large national geriatric interprofessional grant, led a trauma boot camp curriculum, and was a co-author on a simulation technician survey resulting in another manuscript. She is currently pursuing her master's in patient safety at University of Illinois at Chicago while working to improve the EM simulation program at Duke.
- 2014-2017** **Jennifer Yee, DO, *Simulation Director, Dept. of Emergency Medicine, Ohio State University, Columbus, OH.***
Mentored as a simulation fellow at Summa Health doing a part time fellowship over 2 years with resultant manuscript. Dr. Yee has led the effort to improve the simulation training at a small osteopathic hospital (Western Reserve Hospital) where she served as simulation medical director during her fellowship. She led a cutting edge research project (mechanical ventilation boot camp) that has helped our organization develop other cutting edge mechanical ventilation curriculum and on-going research. She has revamped and revitalized the simulation curriculum at Ohio State and won several teaching awards.
- 2016-2017** **Ahmad Khobrani, MD, *Pediatric Emergency Medicine Consultant and medical simulation educator - King Faisal Medical City, Saudi Arabia.***
Mentored as my medical simulation fellow at Summa Health, with resultant manuscript. Pediatric Emergency Medicine attending who developed a simulation-based pediatric trauma boot camp curriculum to execute at pediatric facilities in Saudi Arabia. He is leading the pediatric simulation efforts at his facility in Saudi Arabia.
- 2016-2018** **Derek Ballas, DO, *Simulation fellowship director, Summa Health,-Akron, OH***
Mentored as my medical simulation fellow at Summa Health, with resultant manuscripts. OB/GYN attending physician. Dr. Ballas completed a one-year fellowship and remained on as my Associate Simulation Program Director for one year resulting in 2 additional manuscripts. He transitioned into the role of medical and simulation fellowship director after my departure.
- 2016-2017** **Anna Ciullo, MD, *Chief Resident of Emergency Medicine, Summa Health, Akron Ohio.***

Mentored as core faculty resident advisor at Summa Health. Dr. Ciullo is completed a medical simulation/critical care study on the simulation-based training of medical students on mechanical ventilators incorporating telemedicine. She accepted a position as critical care fellow at the University of Cincinnati.

2016-2017 **Jessica Hernandez, MD, MEHP, *Emergency Medicine Simulation Fellowship Director, UTSW, Dallas, TX.***

Served as her thesis advisor for her master's in health professions education at Johns Hopkins University on a major simulation based research project with resultant manuscript in 2019.

2017-2018 **Elaine Riefkohl-Ortiz, MD, *Simulation Medical Director, Ocala Regional Medical Center-Ocala, FL.***

Mentored as my medical simulation fellow at Summa Health with resultant manuscript. Dr. Riefkohl-Ortiz lead a novel simulation-based boot camp project on iatrogenic error management.

2018-2020 **Rachel ("Rae") Hanke, MD, *Surgical Education/Innovation Fellow, Cincinnati Children's Hospital, Cincinnati, OH.***

Mentored as a Medical Education consultant to the Dept of Surgery for guidance through a modified Delphi checklist validation on pediatric colorectal surgical procedures. Manuscript published in Journal of Pediatric Surgery.

2017-2019 **Kate Hughes, DO, *Medical Simulation fellow, University of Arizona, Tucson, AZ***

Served as her simulation research mentor on a blindfolded code training project with resultant manuscript in 2019. She has won several teaching/simulation awards.

2018-2020 **Mary Hughes, DO, *Chairwoman, Department of Emergency Medicine, Michigan State University.***

Mentored as my medical simulation fellow at IUSOM part-time over 2 years. Resultant manuscripts on Telesimulation death notification training. Dr. Hughes is Professor, Chair and Program Director at Michigan State University College of Osteopathic Medicine and pursued her fellowship after 35 years in Emergency Medicine.

2019-2020 **Lauren Falvo, MD, *Assistant Simulation Fellowship Director, Indiana University SOM, Indianapolis, IN.*** Mentoring as my medical simulation fellow at IUSOM. Accepted into the Academic Life in Emergency Medicine (ALiEM) faculty incubator during fellowship. Multiple resultant manuscripts. Dr. Falvo is currently serving as one of two Assistant Simulation Fellowship Directors at IUSOM. She is completing her research manuscript on a novel simulation-based error disclosure curriculum.

2019-2020 **Anna Bona, MD, *Assistant Simulation Fellowship Director, Indiana University SOM, Indianapolis, IN.*** Mentoring as my medical simulation fellow at IUSOM. Accepted into the Academic Life in Emergency Medicine (ALiEM) faculty incubator during fellowship. Multiple resultant manuscripts. Dr. Bona is currently serving as one of two Assistant Simulation Fellowship Directors at IUSOM. She is completing her research manuscript on a novel simulation-based female executive coaching and negotiation curriculum.

2020-2021 **Devin Doss, MD, *former Medical Simulation fellow, former Chief Resident, Indiana University SOM, Indianapolis, IN.*** Mentoring through 5 disaster simulation-based research projects on PPE and self-contamination.

2021-2022 **Mariju Baluyot, MD, *current Medical Simulation Fellow, Indiana University School of Medicine, Indianapolis, IN.*** Mentoring Mariju through a VR pediatric ECMO simulation study with subsequent manuscript. Pediatric Emergency Medicine attending physician. She will be hired as our future Pediatric Emergency Medicine Assistant Simulation Director post fellowship.

- 2021-2022** **Nicole Novotny, MD, current Medical Simulation Fellow, Indiana University School of Medicine, Indianapolis, IN.** Mentoring Nicole through a novel microaggression DEI curriculum for EM residents with subsequent manuscript. Adult Emergency Medicine attending physician.
- 2021-2022** **Hani Alsaedi, MD, current Medical Simulation Fellow, Indiana University School of Medicine, Indianapolis, IN.** Mentoring Hani through a COVID pediatric cardiogenic shock simulation-based case study. He is a Pediatric Intensivist attending physician.
- 2021-2022** **Alex Croft, MD, current Medical Simulation Fellow, Indiana University School of Medicine, Indianapolis, IN.** Mentoring Alex through a pediatric respiratory failure/situational awareness simulation-based study. Adult Emergency Medicine attending physician.
- 2021-2022** **Maria Bajwa, MBBS, PhD(c), MGH Institute of Health Professions Program, Boston, MA.** Co-mentoring her with Janice Palaganas, PhD, through her research involving distance simulation faculty development guidelines for her PhD.

MISCELLANEOUS

- Diversity, Equity, and Inclusion committee member, IU Dept of EM, 2020-present
- Promotion & Tenure committee member, IUSOM 2018-present
- Johns Hopkins Masters in Health Professions Thesis Advisor (two simulation-based projects), 2016-2019.
- Ohio ACEP Lead course director/developer “Sim based Neonatal & Maternal Skills for the EM provider, 2019-current.
- Society for Simulation in Healthcare National Grant reviewer 2019-current
- Committee Head, In-Situ Planning committee, Indiana University Health Partners, 2018-current.
- IUSOM Leadership in Academic Medicine (LAMP) faculty development mentor, 2018-2020.
- SAEM simulation fellowship accreditation task force committee, 2019-current
- American College of Surgeons, Telementoring Task Force, 2018-2020
- At-large member, Medical Executive Committee, Summa Akron City Hospital 2015-2017
- Member of the Board: Project Learn of Summit County 2015-current. Chairman-Vision and strategy committee.
- Ohio ACEP Medical Education Advisory Committee member 2016-2018.
- Ohio ACEP Oral Board Exam Instructor- Columbus, OH.
- Journal Reviewer (Ad hoc): The Clinical Teacher 2012-current.
- Journal Reviewer (Ad hoc): The Journal of Simulation in Healthcare 2015-current.
- Journal Reviewer (Ad hoc): Journal of the American Osteopathic Association 2017-2019
- Journal Reviewer (Ad hoc): AEM E&T 2018- current.
- Journal Reviewer (Ad hoc): American Journal of Surgery 2019-current.
- Journal Reviewer (Ad hoc): Cureus Journal of Medical Science 2018-current
- Journal Reviewer (Ad hoc): Clinical Simulation in Nursing 2019-current.
- Journal Reviewer (Ad hoc): Medical Teacher 2019-current.
- Journal Reviewer (Ad hoc): International Journal of Healthcare Simulation 2021-current.
- Co-author (4 chapters) Harvard Medical Simulation Casebook (2010).
- NEOMED boot camp instructor 2012-2016.
- Summa Surgical Chair Search committee member

- Summa Institute for Minimally Invasive Surgery committee member (2010-2014)
- City of Akron Emergency Preparedness Committee Member 2012-2016.
- Volunteer Finish-line Physician- Akron Marathon 2012, 2013, 2014, 2016.