

Harvard Medical School Curriculum Vitae

Date Prepared: October 5, 2016
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Place of Birth: South Bend, IN

Education

2004	BS, <i>Magna Cum Laude,</i> <i>with Honors</i>	Biomedical Engineering; Economics	Northwestern University
2009	MD	Medicine	University of Michigan
2009	MBA, <i>High Distinction</i>	Business Administration	Ross School of Business, University of Michigan

Postdoctoral Training

06/09-06/10	Internship	Transitional Year	St. Joseph Mercy Health System, Ann Arbor, MI
09/10-09/13	Residency	Anesthesiology	Massachusetts General Hospital
07/14-06/15	Fellowship	Critical Care Medicine	Massachusetts General Hospital
09/15-06/17	Fellowship (20% time)	Medical Education Research	Harvard Medical School Academy

Faculty Academic Appointments

09/13-06/14, 07/15-present	Instructor	Department of Anesthesia, Critical Care and Pain Medicine (DACCPM)	Harvard Medical School
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Appointments at Hospitals/Affiliated Institutions

07/14-06/15	Code Response Team	Shriner's Hospital, Boston
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Other Professional Positions

2004-2008	Master Trainer (training instructors nationwide)	The Princeton Review, Ann Arbor, MI
2007-2009	Frankel Fund Venture Capital Fellow	Ross School of Business, Ann Arbor, MI
2008	External Consultant	Ascension Health, St. Louis, MO
2008	Summer Associate, Healthcare Consultant	McKinsey & Company, Inc., Detroit, MI

Major Administrative Leadership Positions

Local

2009-2010	Chief Resident for Transitional Year Program	St. Joseph Mercy Health System, Ann Arbor, MI
2013-2014	Chief Resident, DACCPC	Massachusetts General Hospital
2014-2015	Chief Administrative Fellow for Surgical Critical Care Fellowship DACCPC	Massachusetts General Hospital

Committee Service

Local

2011-2014, 2015-present	Quality and Safety Improvement Committee, DACCPC	Massachusetts General Hospital
2013-2014	Quality Assurance Committee, DACCPC	Massachusetts General Hospital
2013-2014	Residency Recruitment Committee, DACCPC	Massachusetts General Hospital
2013-2014	Residency Clinical Competency Committee, DACCPC	Massachusetts General Hospital
2013-present	Residency Education Committee, DACCPC	Massachusetts General Hospital
2014-present	SICU Education Committee, DACCPC	Massachusetts General Hospital

Professional Societies

2010-present	American Society of Anesthesiologists
2010-present	Society of Critical Care Medicine
2015-present	Society of Education in Anesthesia
2016-present	Association of University Anesthesiologists, Associate Member

Editorial Activities

Ad hoc Reviewer

Critical Care Medicine
Minerva Anesthesiologica
BioMed Central Anesthesiology

Other Editorial Roles

2005-2009	Medical Reviewer	Elsevier and Lippincott, Williams & Wilkins
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Honors and Prizes

2008	Henry Ford II Scholarship	University of Michigan Ross School of Business	Awarded to the single top business student based on academic performance
2008	McKinsey Finance Scholar	McKinsey & Company, Inc.	Awarded to top three finance students after a finance case competition at Ross School of Business (out of ~450 students)
2008	McKinsey Marketing Scholar	McKinsey & Company, Inc.	Awarded to top three marketing students after a marketing case competition at Ross School of Business (~450 students)
2008	Alpha Omega Alpha	University of Michigan Medical School	Academic achievement
2008	Dean's Commendation for Excellence in Clinical Skills and the Art of Medicine	University of Michigan Medical School	Clinical
2010	Transitional Year Intern of the Year	St. Joseph Mercy Hospital System	Clinical
2011	Resident Teaching Award	Harvard Medical School	Education
2012	Partners In Excellence Team Award	Partners® Healthcare	Quality and safety
2012	Ellison Pierce Scholarship Award	Anesthesia Patient Safety Foundation	Quality and safety
2014	2014 Program for	Partners® Healthcare	Education

Postgraduate Trainees: International
Future Academic
Clinician Educators
full merit scholarship

Report of Funded and Unfunded Projects

Funding Information

Past

2005 The impact of interactive, computerized educational modules on preclinical medical education
Summer Biomedical Research Program, University of Michigan Medical School
Co-Investigator (\$4,000)
This study examined the effects of a series of interactive supplemental learning modules for preclinical medical education, specifically in the areas of quiz performance, perceived difficulty of concepts, study time, and perceived stress level.

Current

2015-2016 Using Cognitive Psychology to Increase Learning: A Prospective Randomized Controlled Trial
ECOTE Education & Teaching Pilot Project Award, Massachusetts General Hospital
PI (\$28,750)
The major goal of this study is to examine the effects of Mental Contrasting with Implementation Intentions and Retrieval-Based Learning on self-directed learning of resident physicians.

2015-2016 The Combined Effects of Retrieval-Based Learning and Mental Contrasting with Implementation Intentions on Self-Directed Learning: A Comparative Effectiveness Trial
Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital
PI (support for 40% research time)
This represents internal department funding to support my research efforts and pursue external funding. This is not as a result of competition between different grant proposals.

Past Unfunded Projects

2014-2016 Improving Resident Reading Habits: A Comparative Effectiveness Trial Using Implementation Intentions
PI
The major goal of this study is to examine the impact of Mental Contrasting with Implementation Intentions on time spent reading by anesthesia residents during their intensive care unit rotation.

Report of Local Teaching and Training

Teaching of Students in Courses

2004-2008	Biology for the MCAT Undergraduate Pre-Medical Students	The Princeton Review, Ann Arbor 3-hr sessions for 9 wks each year
2004-2008	Physics for the MCAT Undergraduate Pre-Medical Students	The Princeton Review, Ann Arbor 3-hr sessions for 9 wks each year

Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

2011	Management of Pulseless Arrest Anesthesia Residents, DACCPM	Massachusetts General Hospital 1 hour lecture
2012	Neuraxial Administration of Opioids and Local Anesthetics Anesthesia Residents, DACCPM	Massachusetts General Hospital 1 hour lecture
2013, 2014	Airway Anatomy Anesthesia Residents, DACCPM	Massachusetts General Hospital Yearly 1 hour lecture
2014	Preoperative Cardiac Risk Stratification Anesthesia Residents, DACCPM	Massachusetts General Hospital 1 hour lecture
2015	Mock Oral Examination Residents and fellows, DACCPM	Massachusetts General Hospital 6 hours across two sessions (Feb, Nov) - formal mock oral examinations
2015	Anesthesia Simulation Course PGY-2 Residents	Massachusetts General Hospital 8 hour course
2015	Patient Safety PGY-3 and PGY-4 Residents	Massachusetts General Hospital 1 hour lecture
2015-2016	Fellow Didactics Anesthesia and Surgical Critical Care Fellows	Massachusetts General Hospital 1 hour discussion sections, approximately three times per month
2015-2016	Medical Education Research Discussion Group Anesthesia Residents	Massachusetts General Hospital 30 minute sessions once weekly

Clinical Supervisory and Training Responsibilities

2013-2014	Supervise resident anesthetic management of patients in operating rooms	3 days per week
2014-2015	Supervise resident and medical student management of intensive care unit patients	3 days per week (average over the year)
2015-present	Supervise resident anesthetic management of patients in operating rooms	3 days per week

Formally Supervised Trainees

2014	Puneet Sayal, MD / Anesthesia Resident Presented 2 abstracts at Society for Obstetrical Anesthesiology and Perinatology meeting
2014	Kevin Blackney, MD / Anesthesia Resident Presented abstract at American Society of Anesthesiologists meeting, and case report accepted to <i>Anesthesia & Analgesia</i>
2014	Christina Jelly, MD / Anesthesia Resident Co-wrote a book chapter on hemodynamic monitoring in critically ill patients
2015-2016	Jenna Cottral, MD / Anesthesia Resident Development of training and survey materials for two-site multidisciplinary Graduate Medical Education study
2014	Michael Wolfe, MD / Anesthesia Resident Co-wrote a book chapter on article studying physical and occupational therapy in critically ill patients

Local Invited Presentations

No presentations below were sponsored by outside entities.

2011	Post-Operative Recall / MGH DACCPM Case Conference
2012	Difficult Airway Management in the Parturient / MGH DACCPM Case Conference
2012	Kotter's Theory of Change Management / Quality and Safety Improvement Committee (Kelsey McCarty)
2012, 2013	The "Yes, and..." Mindset for Team Innovation / Quality and Safety Improvement Committee (Kelsey McCarty)
2013	Upper Extremity Blocks / MGH DACCPM Case Conference
2014	Preoperative Cardiac Risk Stratification / Board Review for Anesthesia Residents
2014	Resuscitation in Severe Sepsis / MGH DACCPM Journal Club
2014	SEPSISPAM: Blood Pressure Targets in Septic Shock / MGH DACCPM Critical Care Fellow Journal Club
2015	Intra-Abdominal Hypertension and Abdominal Compartment Syndrome / MGH Surgical ICU Morbidity and Mortality Conference
2015	"Implementation Intentions": The Power of Simple Planning / MGH DACCPM Faculty Development Seminar
2016	"WOOP" – How to Successfully Achieve Academic Goals / Harvard Academy Science of Learning Interest Group, Harvard Medical School
2016	Self-directed learning in medical school and beyond / Harvard Medical School Medical Students

- 2016 Achieving Your Goals: What Cognitive Psychology Has to Offer / Grand Rounds, Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital
- 2016 “WOOP” – Using Cognitive Psychology to Achieve Your Goals
Grand Rounds, Department of Anesthesia, Massachusetts Eye and Ear Infirmary

Report of Regional, National and International Invited Teaching and Presentations

Invited Presentations and Courses

National

- 2016 Cognitive psychology and behavior change: Turning good intentions into effective actions
SEA Spring Meeting Workshop for Quality and Safety Education Program Implementation at the Institutional Level (scheduled 6/4/16)
- 2016 Strategies to Successfully Act on Intentions, VA Healthcare System, Faculty Development (scheduled 11/4/16)

Report of Clinical Activities and Innovations

Current Licensure and Certification

- 2013-2018 Massachusetts Medical License
- 2014-2024 Board Certification in Anesthesiology

Practice Activities

2010-2013	Anesthesia care	Massachusetts General Hospital, DACCPC	Five days per week
2013-2014	Anesthesia care	Massachusetts General Hospital, DACCPC	Three days per week
2014-2015	Intensive unit care	Massachusetts General Hospital, DACCPC	Three days per week (averaged over the year)
2015-present	Anesthesia and intensive unit care	Massachusetts General Hospital, DACCPC	Three-four days per week (averaged over the year)

Clinical Innovations

Comparison of attempted limb salvage and primary amputation for the severely injured lower extremity (2007 – 2009)

The question of whether to amputate or attempt salvage after severe (type IIIB and IIIC) open tibial fractures is challenging. To derive evidence-based recommendations, I performed a systematic review of primary amputation versus limb salvage for type IIIB and IIIC open tibial fractures. I published these outcome data. I next performed a utility analysis of each of the outcomes, which was also

published. Lastly, I incorporated cost information to publish a rigorous cost utility analysis of amputation versus salvage attempt. I found that attempted limb salvage was less expensive and resulted in higher utility than amputation. Based on this, I recommended that surgeons consider limb salvage more aggressively, unless the injury is so severe that attempted salvage is not a possibility. This research has been cited in other published works over 110 times.

Improvements in catatonia
recognition among critically ill
patients
(2013-2014)

This work brings catatonia to the attention of intensivists who are assessing altered mental status. Catatonia is a neuropsychiatric syndrome with motor and behavioral symptoms and substantial morbidity and mortality. Although it is likely more prevalent in the ICU than appreciated, it is difficult to differentiate from other forms of altered mental status in critically ill patients, and the diagnosis and management of the condition was not previously published in peer-reviewed ICU literature. I detailed the cases of 5 critically ill patients with catatonia and developed criteria to help make the diagnosis more specific to critically ill patients. I published this work in *Critical Care Medicine* in 2014. It was selected for an editorial because of its importance and novelty.

Application of process
improvement principles to
change airway documentation
practices (2014)

In this process improvement research effort, we improved percent of complete airway documentation from a baseline of 13.2% (across 23,011 general anesthetic records) to a sustained average of 90.7% (across 82,571 general anesthetic records) over an 18-month period. We did this with application of management organization principles that have been studied in other domains. We published our process and findings in *Anesthesiology* in December 2014 to allow for more widespread application of these processes in medical practice.

Report of Technological and Other Scientific Innovations

2005 “Dynamic Smart (DS) Brace” – I developed, researched, and obtained a provisional patent on a continuously adjustable thoracolumbosacral orthotic for use with sagittal plane spinal pathologies. (Patent Serial No. 60/617,310; filed 9/9/2005)

Report of Education of Patients and Service to the Community

Activities

2005-2007 St. Ann Catholic School (K-8) in Chicago, IL / Guest presenter
Designed and delivered interactive healthcare sessions to elementary school students.

2007-2010 Fortis Academy in Ypsilanti, MI / Guest presenter
Designed and delivered interactive healthcare sessions to elementary school students.

Report of Scholarship

Publications

Peer reviewed publications in print or other media

Research Investigations

1. Bryner BS, **Saddawi-Konefka D**, Gest T. The impact of interactive, computerized educational modules on preclinical medical education. *Anat Sci Educ*, 2008. 1(6): 247-251.
2. Chung KC, **Saddawi-Konefka D**, Haase SC, Kaul G. A cost-utility analysis of amputation versus salvage for Gustilo IIIB and IIIC open tibial fractures. *Plast Reconstr Surg*, 2009. 124(6): 1965-1973
3. Chung KC, Oda T, **Saddawi-Konefka D**, Shauver MJ. An economic analysis of hand transplantation in the United States. *Plast Reconstr Surg*, 2010. 125(2): 589-598
4. Chung KC, Shauver MJ, **Saddawi-Konefka D**, Haase SC. A decision analysis of amputation versus reconstruction for severe open tibial fracture from the physician and patient perspectives. *Ann Plast Surg*, 2010. 66(2): 185-191
5. McCarty L, **Saddawi-Konefka D**, Gargan L, Driscoll W, Walsh J, Peterfreund P. Application of process improvement principles to increase frequency of complete airway management documentation. *Anesthesiology*, Dec 2014. 121 (6); 1166-1174

Featured article in “This Month in *Anesthesiology*”

Other peer-reviewed publications:

Reviews

1. **Saddawi-Konefka D**, Kim HM, Chung KC. A systematic review of outcomes and complications of reconstruction and amputation for type IIIB and IIIC fractures of the tibia. *Plast Reconstr Surg*, 2008. 122(6): 1796-1805.
2. **Saddawi-Konefka D**, Hung SL, Kacmarek RM, Jiang Y. Optimizing Mask Ventilation: Literature Review and Development of a Conceptual Framework. *Respiratory Care*, 2015. 60(12): 1834-1840
3. **Saddawi-Konefka D**, Schumacher DJ, Baker KH, Charnin JC, Gollwitzer PM. Changing Physician Behavior with Implementation Intentions: Closing the Gap Between Intentions and Actions.” *Acad Med*, *e-published ahead of print*, March 22, 2016

Case Series

1. **Saddawi-Konefka D**, Berg SM, Nejad SH, Bittner E. Catatonia in the ICU: An important and underdiagnosed cause of altered mental status. A case series and review of the literature. *Crit Care Med*, 2014. 42(3): e234-e241
Editorial in *Critical Care Medicine*. Young GB. Catatonia in the ICU: Something worth knowing. *Crit Care Med*, Mar 2014. 42(3): 760-761
2. Blackney KA, Zavodni ZJ, **Saddawi-Konefka D**, Anesthetic Implications of Aqueous Drainage Devices for Glaucoma: Case Report of a Patient Undergoing Urgent Prone Cervical Decompression and Fusion. *Anesthesia & Analgesia*, *Accepted December 2015*

Peer-Reviewed Educational Resources

1. **Saddawi-Konefka D**, Bryner BS, Gest T, Fantone JC. The complement system: An interactive flash

module. Association of American Medical Colleges, MedEdPORTAL Online Resources. 9/4/2009

Non-peer reviewed scientific or medical publications/materials in print or other media

Reviews

1. **Saddawi-Konefka D**, Cordina J, Engagement Manager guide to managing customer perception through service redesign. McKinsey & Company, Inc. internal archives, 2008.
2. **Saddawi-Konefka D**, Cordina J, Managing customer perception: Using science to improve art. McKinsey & Company, Inc. internal archives, 2008.

Editorials / Commentaries

1. **Saddawi-Konefka D**, Cooper JB. Check the Anesthesia Machine. AHRQ WebM&M: Morbidity and Mortality Rounds on the Web, Dec 2013. www.webmm.ahrq.gov/case.aspx?caseID=312
2. **Saddawi-Konefka D**, Alston T. Tracking the Wily Speckle in Darkest Sepsis. *Critical Care Medicine*, Jun 2014. 42 (6): 1577-1579
3. **Saddawi-Konefka D**, Berg SM, Nejad SH, Bittner E. The authors reply. *Crit Care Med*, Feb 2015. 43(2): e48-e49
4. **Saddawi-Konefka D**, Alston T. An electrocardiographic monitor for reducing hemodynamic suspense during laryngoscopy. *Minerva Anesthesiol*, Mar 2015; 81(3): 255-257

Professional educational materials or reports, in print or other media

1. **Saddawi-Konefka D**, Charnin J. Chapter 6 - Hemodynamic monitoring, In: Wiener-Kronish J ed. *Critical Care Secrets*, 5th edition. St. Louis, MO: Elsevier; 2013, p 39-46.
2. **Saddawi-Konefka D**, Lee J. Arrhythmias, In: Lillemoe, K ed. *Clinical Decision Support: Surgery*, 1st edition, Lillemoe, K., Decision Support in Medicine, LLC, 2013, (digital resource) <http://www.decisionsupportinmedicine.com/>
3. **Saddawi-Konefka D**, Alston T. Neurotransmission, In: Trefil, J ed. *Discoveries in Modern Science: Exploration, Invention, Technology*, 1st edition, Farmington Hills, MI: MacMillan Reference; 2014, p 779-784.
4. Jelly C, **Saddawi-Konefka D**. Hemodynamic monitoring, In: Wiener-Kronish J ed. *Critical Care Handbook of the Massachusetts General Hospital*, 6th Edition; Wolters Kluwer Health; 2015, p 1-12.
5. Wolfe M, **Saddawi-Konefka D**. Daily interruption of sedation with physical and occupational therapy in mechanically ventilated patients, In: Bittner E ed. *50 Studies Every Intensivist Should Know*; Oxford University Press; *in Press*

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings

1. Sayal P, Minehart R, **Saddawi-Konefka D**. Unanticipated difficult airway due to succinylcholine-induced masseter spasm in the term parturient. SOAP 46th Annual Meeting, Toronto, Canada, March 16, 2014
2. Sayal P, Wang J, **Saddawi-Konefka D**. Severe mitral regurgitation with decompensated heart failure due to preeclampsia. SOAP 46th Annual Meeting, Toronto, Canada, March 16, 2014
3. Blackney K, **Saddawi-Konefka D**. Anesthetic management of a Jehovah's Witness with an Ahmed

valve for glaucoma undergoing a prone cervical fusion. ASA Annual Meeting, New Orleans, LA, October 11-15, 2014

4. **Saddawi-Konefka D**, Baker KH, Guarino A, Charnin J. Changing Learning Behaviors: *Mental Contrasting with Implementation Intentions* Increases Goal-Directed Reading in Residents. Medical Education Day at Harvard Medical School, Boston, MA, October 27, 2015
5. **Saddawi-Konefka D**, Cottrall J, Agarwal P, Karpicke J, Oettingen G, Gollwitzer P, Baker K. □ Can Strategies from Cognitive Psychology Improve Self-Directed Learning in Residents? A Two-Center Multidisciplinary Randomized Comparative Effectiveness Trial. ECOTE Symposium, Boston, MA, May 16, 2016

Narrative Report

Introduction

I am an anesthesiologist who specializes in the care of critically ill patients. I completed medical school and business school at the University of Michigan. After completing an anesthesia residency, chief residency, and critical care fellowship at the MGH, I joined the faculty, where I provide clinical care, supervise trainees, and conduct research on improving physician practice to enhance our knowledge and the quality of patient care.

Area of Excellence – Clinical Expertise and Innovation

My clinical interests and expertise focus on improving physician decisions and behaviors to advance clinical outcomes in anesthesia and critical care medicine. I have first author publications related to this, and have given local and regional lectures on this topic. I am also mentoring trainees in this field.

My passion borrows heavily from my background in business. While working for McKinsey & Company, I applied psychological perception principles to improve patient satisfaction in a chronic disease management company, and subsequently published two white papers. In 2008 and 2009, I published work on decision making and cost-utility of salvage versus amputation of the severely traumatized lower extremity. We found that attempted salvage increased utility and decreased long-term costs. This pivotal work has been cited 132 times to date. In 2011, I published a similar cost-utility analysis for hand transplantation, which has been cited over 50 times to date.

More recently, I have used my background in business to change physician behaviors. Using quality improvement and organizational change principles, my team increased the reliability of our department's airway documentation practices. This work was published in *Anesthesiology* in December 2014 as a featured article. In 2015, I completed a six-month study using a strategy from cognitive psychology that significantly increased time spent studying by anesthesia residents in the ICU. This year, I published a manuscript in *Academic Medicine* reviewing novel applications of this strategy to reduce the gap between physicians' intentions and actions.

I am currently running a two-institution randomized comparative effectiveness trial focused on improving the learning behaviors of graduate medical education trainees, through the application of grounded theory from cognitive psychology. This work includes collaboration with content experts from around the country. The study has a targeted enrollment of 391 residents, and is funded with a grant from the MGH Executive Committee On Teaching and Education.

Teaching

My teaching activities have included formal didactics and supervision of medical students, residents and fellows, and formal mentorship of trainees in professional development. My teaching scores are in the top quartile of all DACCPM faculty, and in 2011 I received the Resident Teaching Award from Harvard Medical School. I serve on the Residency Education Committee, and the SICU Education Committee. I coordinate the weekly Anesthesia Critical Care didactics and also lead the weekly discussion group for anesthesia residents interested in social science research methods and statistics.

Supporting Activity – Clinical Expertise and Innovation

In addition to providing administrative oversight, clinical care, and teaching, my academic work includes a case series and review of catatonia in the ICU, a review of difficult mask ventilation, a mentored case report on post-

operative visual loss, and several book chapters, editorials, posters and abstracts. Collectively, my academic product has been collectively cited over 230 times in peer-reviewed publications.

Summary

Since my appointment as Instructor at HMS, I have endeavored to provide excellent clinical care, administrative oversight, and teaching, while also conducting research in my area of excellence. I have a track record of academic scholarship, including research and application of behavioral change strategies to medicine. I have a clear plan for continued success, including ongoing studies, grant funding, and mentoring of trainees. I believe that my work will meaningfully contribute to Harvard's national excellence, and help improve the care of patients.