1) Personal Information

Address:

260 MacNider Hall CB #7221 University of North Carolina at Chapel Hill Chapel Hill, NC 27599-7221 Phone (office): (919) 966-7495

2) Education

A. University

Doctor of Medicine (MD)

University of North Carolina at Chapel Hill School of Medicine Chapel Hill, North Carolina 08/1997-05/2002

Master of Public Health (MPH)

University of North Carolina School of Public Health Chapel Hill, North Carolina 08/2000-05/2002

Bachelor of Arts, Math Education Secondary Certification, Economics University of North Carolina at Chapel Hill

Chapel Hill, North Carolina 08/1989-12/1993

B. Post-Graduate Training

Fellowship, Pediatric Critical Care Medicine University of North Carolina at Chapel Hill Chapel Hill, North Carolina 07/1/2006-06/1/2009

Chief Resident, Pediatrics

Albert Einstein College of Medicine Pediatric Residency Program at Montefiore Medical Center Bronx, New York 06/2005-06/2006

Pediatric Residency

Albert Einstein College of Medicine Pediatric Residency Program at Montefiore Medical Center Bronx, New York 07/2003-05/2005

Pediatric Internship

Albert Einstein College of Medicine Pediatric Residency Program at Montefiore Medical Center Bronx, New York 07/1/2002-06/1/2003

C. Medical License

North Carolina (active) - 2006

New York (active)-2005

D. Educational Certifications

Instructor, Pediatric Advanced Life Support Course Pediatric Residents 2010-Current

Instructor, Advanced Trauma Life Support Course 2006-Current

Diplomat, American Board of Pediatrics, Sub Board of Pediatric Critical Care Medicine 2010

Diplomat, American Board of Pediatrics, General Pediatrics 2005, 2015

3) Professional Experience - Employment History

A. Hospital

Professor

Departments of Pediatrics and Anesthesia Division of Pediatric Critical Care Medicine The University of North Carolina at Chapel Hill Chapel Hill, North Carolina 3/2023- Current

Clinical Professor

Departments of Pediatrics and Anesthesia Division of Pediatric Critical Care Medicine The University of North Carolina at Chapel Hill Chapel Hill, North Carolina 9/2020 – 3/2023

Adjunct Professor Department of Social Medicine The University of North Carolina at Chapel Hill Chapel Hill, North Carolina 9/2020-Current

Clinical Associate Professor Departments of Pediatrics and Anesthesia Division of Pediatric Critical Care Medicine The University of North Carolina at Chapel Hill Chapel Hill, North Carolina 6/2015-8/20220

Adjunct Associate Professor Department of Social Medicine The University of North Carolina at Chapel Hill Chapel Hill, North Carolina 7/2015-8/2020

Clinical Assistant Professor Departments of Pediatrics & Anesthesia Division of Pediatric Critical Care Medicine The University of North Carolina at Chapel Hill Chapel Hill, North Carolina 07/2009 - 6/2015

Attending Pediatrician Pediatric Emergency Room Montefiore Medical Center Bronx, New York 06/2005 - 06/2006

B. Non-Hospital

Mathematics Teacher Durham Public Schools 01/1994-12/1994

Records Assistant, General Alumni Association Chapel Hill, North Carolina 01/1995-08/1996

2022 Alpha Omega Alpha Honor Society

The University of North Carolina at Chapel Hill School of Medicine

Chapel Hill, North Carolina National medical honor society

2020 Craver Medical Student Teaching Award

The University of North Carolina at Chapel Hill School of Medicine

Chapel Hill, North Carolina

Recognition by medical students for outstanding teaching and ability to inspire and change the lives of students.

2020 H. Fleming Fuller Award

The University of North Carolina at Chapel Hill School of Medicine

Chapel Hill, North Carolina

 ${\it The Fuller Award recognizes members of the medical staff who demonstrate the qualities embodied in Dr.}$

Fuller's lifelong dedication to the highest standards of patient care, teaching, and community.

2016 Simmons Scholar Career Development Award

The University of North Carolina at Chapel Hill School of Medicine

Chapel Hill, North Carolina

UNC initiative to support the work and professional development of minority faculty members

2016 The C. Richard Morris Faculty Teaching Award

Department of Pediatrics, The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Given by graduating Pediatric and Medicine-Pediatric residents to a clinician "whose efforts have contributed most to housestaff education."

2016 UNC Healthcare Plus-People Award Winner, Winter 2016

Chapel Hill, North Carolina

Award given each quarter to individuals who represent excellence in service to UNC Healthcare.

2015 The Walter B. Tunnessen Faculty Clinician Award Department of Pediatrics

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Given by graduating Pediatric and Medicine-Pediatric residents to a clinician considered to have outstanding clinical acumen.

2014 Award for: Best abstract in simulation-based medical education at Pediatric Academic Societies (PAS)

International Meeting Vancouver, Canada

Award given by PAS Simulation-Based Medical Education Special Interest Group honoring best abstract in simulation-based medical education at PAS 2014.

2013 Academy of Educators, Inducted as Member

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

The academy promotes excellence in teaching and supports the work and career paths of excellent teachers.

2013 Academic Career Leadership Academy in Medicine (ACCLAIM)

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

The ACCLAIM Program is a School of Medicine program that provides leadership and career development opportunities to junior faculty members.

3

2012 The Walter B. Tunnessen Faculty Clinician Award Department of Pediatrics

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Given by graduating Pediatric and Medicine-Pediatric residents to a clinician considered to have

outstanding clinical acumen.

2011 Resident Education Honor Roll Department of Anesthesia

Division of Pediatric Critical Care Medicine The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Awarded to faculty receiving a perfect '10' on teaching evaluations by all residents for the academic year.

2010-2011 Teaching Scholars Program

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

A Program designed to promote expertise in medical education. Ten Teaching Scholars are chosen yearly from faculty nominated by their department chairs.

2009 James Emonson Fellow Honor

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Award honors outstanding subspecialty fellow in the Department of Pediatrics.

2009 Amal Murarka Pediatric Fellow Teaching Award

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Awarded to subspecialty fellow for outstanding contributions to the instruction of pediatric residents.

2007 Resident of the Year Award

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

2006 Leo M. Davidoff Honor Society

The Albert Einstein College of Medici ne

Bronx, New York

Academic Honor Society honoring the memory of Dr. Leo M. Davidoff, founder of the College of Medicine.

2004 Best Resident Teacher Award

Montefiore Medical Center

Bronx, New York

2002 The James Bell Bullit Award

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Given to the graduating medical student for unusual achievement/contribution to the medical community.

1999 The Novartis Award

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Given to the sophomore student who contributed in an outstanding manner in community service.

1999-2001 Eugene E. Mayer Community Service Honor Society

The University of North Carolina at Chapel Hill Chapel Hill, North Carolina

President, 2000-2001, Board Member, 1999-2001

1997-2002 Board of Governors Medical Scholarship

The University of North Carolina at Chapel Hill Chapel Hill, North Carolina.

Four-year scholarship funding full tuition.

1989-1993 Joseph E. Pogue Academic Scholarship

The University of North Carolina at Chapel Hill Chapel Hill, North Carolina

Four-year academic scholarship funding full tuition.

5) Bibliography and products of scholarship

A. Textbook

Bjornstad EC, Joyner BL Jr, et al. (editors). North Carolina Children's Global Health Handbook: A
Pediatrician's Guide to Integrating IMCI Guidelines in Sub-Saharan Africa. The University of North Carolina
Press, 2018.

B. Textbook Chapters

1. Scolaro, K., Woodyard, D., Joyner, B. & Durham, C. Building Interprofessional Teams. In G. Sherwood & S. Horton-Deutsch (Eds.). Reflective Practices: Transforming Organizations and Systems to Improve Quality and Safety. Indianapolis: Sigma Theta Tau Press. May 2015. pp. 189-214

C. Original Publications (Public Bibliography)

- 1. **Joyner BL Jr.** Out-of-Hospital Cardiac Arrests: Adding to the Complexity. J Am Heart Assoc. 2023 Sep 19;12(18):e031000. doi: 10.1161/JAHA.123.031000. Epub 2023 Sep 18. PubMed PMID: 37721157
- 2. Stein J, Kay HE, Sites J, Pirzadeh A, Joyner BL Jr, Darville T, Bjurlin MA, Rose TL, Jaspers I, Milowsky MI. Electronic cigarette, or vaping, product use-associated lung injury (E¹VALI) in a patient with testicular cancer: A case report. Tumori. 2023 May 10;:3008916231172806. doi: 10.1177/03008916231172806. [Epub ahead of print] PubMed PMID: 37165581.
- 3. Morgan RW, Atkins DL, Hsu A, Kamath-Rayne BD, Aziz K, Berg RA, Bhanji F, Chan M, Cheng A, Chiotos K, de Caen A, Duff JP, Fuchs S, Joyner BL, Kleinman M, Lasa JJ, Lee HC, Lehotzky RE, Levy A, McBride ME, Meckler G, Nadkarni V, Raymond T, Roberts K, Schexnayder SM, Sutton RM, Terry M, Walsh B, Zelop CM, Sasson C, Topjian A; American Heart Association Emergency Cardiovascular Committee and Get with the Guidelines-Resuscitation Pediatric Task Force in Collaboration with the American Academy of Pediatrics, American Association for Respiratory Care, and American Society of Anesthesiologists. Guidance for Cardiopulmonary Resuscitation of Children With Suspected or Confirmed COVID-19. Pediatrics. 2022 Sep 1;150(3):e2021056043. doi: 10.1542/peds.2021-056043. PMID: 35818123.
- 4. Forcier BL, Joyner Jr. BL, and Davis AM. One Goal, Two Roles: Clinicians and Clinical Ethicists Should Approach Patients' Ambivalence Diffferently. Am J Bioeth. 2022 Jun; 22(6):50-52. doi: 10.1080/15265161.2022.2063443. PMID: 35616969.
- 5. Atkins DL, Sasson C, Hsu A, Aziz K, Becker LB, Berg RA, Bhanji F, Bradlev SM, Brooks SC, Chan M, Chan PS, Cheng A, Clemency BM, de Caen A, Duff JP, Edelson DP, Flores GE, Fuchs S, Girotra S, Hinkson C, Joyner BL Jr, Kamath-Rayne BD, Kleinman M, Kudenchuk PJ, Lasa JJ, Lavonas EJ, Lee HC, Lehotzky RE, Levy A, McBride ME, Meckler G, Merchant RM, Moitra VK, Nadkarni V, Panchal AR, Ann Peberdy M, Raymond T, Roberts K, Sayre MR, Schexnayder SM, Sutton RM, Terry M, Topjian A, Walsh B, Wang DS, Zelop CM, Morgan RW; Emergency Cardiovascular Care Committee and Get With the Guidelines-Resuscitation, Adult and Pediatric Task Forces of the American Heart Association in Collaboration With the American Academy of Pediatrics, American Association for Respiratory Care, American Society of Anesthesiologists, and the Society of Critical Care Anesthesiologists. 2022 Interim Guidance to Health Care Providers for Basic and Advanced Cardiac Life Support in Adults, Children, and Neonates With Suspected or Confirmed COVID-19: From the Emergency Cardiovascular Care Committee and Get With The Guidelines-Resuscitation Adult and Pediatric Task Forces of the American Heart Association in Collaboration With the American Academy of Pediatrics, American Association for Respiratory Care, the Society of Critical Care Anesthesiologists, and American Society of Anesthesiologists. Circ Cardiovasc Qual Outcomes. 2022 Apr;15(4):e008900. doi: 10.1161/CIRCOUTCOMES.122.008900. Epub 2022 Jan 24. PMID: 35072519.
- 6. Zwemer E, Chen F, Beck Dallaghan G L, Shevnvi, C, Wilson L, Resnick-Kahle M, Crowner J, Joyner B L, Westervelt L, Jordan JM, Chuang A, Shaheen A, Martinelle S M. (January 26, 2022) Reinvigorating an Academy of Medical Educators using Ecological Systems Theory. Cureus. 2022 Jan 26;14(1):e21640. doi: 10.7759/cureus.21640. PMID: 35233317; PMCID: PMC8881048.
- 7. Hsu A, Sasson C, Kudenchuk PJ, Atkins DL, Aziz K, Becker LB, Berg RA, Bhanji F, Bradley SM, Brooks SC, Chan M, Chan PS, Cheng A, Clemency BM, de Caen A, Duff JP, Edelson DP, Flores GE, Fuchs S, Girotra S, Hinkson C, Joyner BL Jr, Kamath-Rayne BD, Kleinman M, Lasa JJ, Lavonas EJ, Lee HC, Lehotzky RE, Levy A, Mancini ME, McBride ME, Meckler G, Merchant RM, Moitra VK, Morgan RW, Nadkarni V, Panchal AR, Peberdy MA, Raymond T, Roberts K, Sayre MR, Schexnayder SM, Sutton RM, Terry M, Walsh B, Wang DS, Zelop CM, Topjian A. 2021 Interim Guidance to Health Care Providers for Basic and Advanced Cardiac Life Support in Adults, Children, and Neonates With Suspected or Confirmed COVID-19. Circ Cardiovasc Qual Outcomes. 2021 Oct;14(10):e008396. https://doi:10.1161/CIRCOUTCOMES.121.008396. Epub 2021 Oct 13. PMID: 34641719; PMCID: PMC8522336
- 8. Hsu A, Sasson C, Kudenchuk P, Atkins D, Aziz K, Becker L, Berg R, Bhanji F, Bradley S, Brooks S, Chan M,

- Chan P, Cheng A, Clemency B, de Caen A, Duff J, Edelson D, Flores G, Fuchs S, Girotra S, Hinkson C, Joyner B L Jr, Kamath-Rayne B, Kleinman M, Lasa J, Lavonas E, Lee H, Lehotzky R, Levy A, Mancini M, McBride M, Meckler G, Merchant R, Moitra V, Morgan R, Nadkarni V, Panchal A, Peberdy M, Raymond T, Roberts K, Sayre M, Schexnayder S, Sutton R, Terry M, Walsh B, Wang D, Zelop C, Topjian A. 2021 Interim Guidance to Healthcare Providers for Basic and Advanced Cardiac Life Support in Adults, Children, and Neonates With Suspected or Confirmed COVID-19. Circulation: Cardiovascular Quality and Outcomes CIRCCQO/2021/008396-T1
- 9. Ninan S, Thompson P, Gershon T, Ford N, Mills W, Jewells V, Thorne L, Saunders K, Bouldin T, Smedberg J, Miller M, Wu E, Tilly A, Sites, J, Lercher D, Clement K, Walker T, Shea P, Joyner B, Smith R. Fatal Pediatric COVID-19 Case With Seizures and Fulminant Cerebral Edema. Child Neurology Open. January 2021. doi:10.1177/2329048X211022532
- Topjian AA, Raymond TT, Atkins D, Chan M, Duff JP, Joyner BL Jr, Lasa JJ, Lavonas EJ, Levy A, Mahgoub M, Meckler GD, Roberts KE, Sutton RM, Schexnayder SM. Part 4: Pediatric Basic and Advanced Life Support 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Pediatrics. 2021 Jan;147(Suppl 1). doi: 10.1542/peds.2020-038505D. Epub 2020 Oct 21. Review. PubMed PMID: 33087552.
- 11. Jaswaney R, Davis A, Cadigan RJ, Waltz M, Brassfield ER, Forcier B, Joyner BL Jr. Hospital Policies During COVID-19: An Analysis of Visitor Restrictions. J Public Health Manag Pract. 2022 Jan-Feb 01;28(1):E299-E306. doi: 10.1097/PHH.0000000000001320. PMID: 33729198.
- 12. Pajer HB, Asher AM, Leung D, Barnett RR, Joyner BL, Quinsey CS. Adherence to Guidelines for managing Severe Traumatic Brain Injury in Children. Am J Crit Care. 2021 Sep 1;30(5):402-406. doi: 10.4037/ajcc2021111. PMID: 34467382
- 13. Nakamura ZM, MacKay DP, Davis AM, Brassfield ER, Joyner BL Jr, Rosenstein DL. Reconsidering scarce drug rationing: implications for clinical research. Journal of Medical Ethics Published Online First: 27 November 2020. http://dx.doi.org/10.1136/medethics-2020-106739
- 14. Topjian AA, Raymond TT, Atkins D, Chan M, Duff JP, Joyner BL Jr, Lasa JJ, Lavonas EJ, Levy A, Mahgoub M, Meckler GD, Roberts KE, Sutton RM, Schexnayder SM; Pediatric Basic and Advanced Life Support Collaborators. Part 4: Pediatric Basic and Advanced Life Support: 2020 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2020 Oct 20;142(16_suppl_2):S469-S523. https://doi: 10.1161/CIR.00000000000000001. Epub 2020 Oct 21. PMID: 33081526.
- 15. Smith MK, Xu RH, Hunt SL, Wei C, Tucker JD, Tang W, Luo D, Xue H, Wang C, Yang L, Bin Y, Li L, Joyner BL Jr, Sylvia SY. Combating HIV Stigma in Low- and Middle-Income Health Care Settings: A Scoping Review. J Int AIDS Soc. 2020 Aug; 23(8):e25553.doi: 10.1002/jia2.25553 PMID: 32844580
- 16. Topjian A, Aziz K, Kamath-Rayne BD, Atkins DL, Becker L, Berg RA, Bradley SM, Bhanji F, Brooks S, Chan M, Chan P, Cheng A, de Caen A, Duff JP, Escobedo M, Flores GE, Fuchs S, Girotra S, Hsu A, Joyner BL Jr, Kleinman M, Lasa JJ, Lee HC, Lehotzky RE, Levy A, Mancini ME, McBride ME, Meckler G, Merchant RM, Morgan RW, Nadkarni V, Panchal AR, Peberdy MA, Raymond T, Roberts K, Sasson C, Schexnayder SM, Sutton RM, Terry M, Walsh B, Wang DS, Zelop CM, Edelson DP. Interim Guidance for Basic and Advanced Life Support in Children and Neonates With Suspected or Confirmed COVID-19. Pediatrics. 2020 May 4:e20201405. doi: 10.1542/peds.2020-1405. Epub ahead of print. PMID: 32366608.
- 17. Waltz M, Davis A, Cadigan RJ, Jaswaney R, Smith M, Joyner B. Professionalism and ethics: a standardized patient observed standardized clinical examination to assess ACGME pediatric professionalism milestones. MedEdPORTAL. 2020 Jan 31;16:10873. https://doi.org/10.15766/mep 2374-8265.10873
- 18. Hsu HE, Abanyie F, Agus MSD, Balamuth F, Brady PW, Brilli RJ, Carcillo JA, Dantes R, Epstein L, Fiore AE, Gerber JS, Gokhale RH, Joyner BL Jr, Kissoon N, Klompas M, Lee GM, Macias CG, Puopolo KM, Sulton CD, Weiss SL, Rhee C. A National Approach to Pediatric Sepsis Surveillance. Pediatrics. 2019 Dec; 144(6):e20191790. doi: 10.1542/peds.2019-1790. PMID: 31776196; PMCID: PMC6889946.
- 19. Duff JP, Topjian AA, Berg MD, Chan M, Haskell SE, Joyner BL Jr, Lasa JJ, Ley SJ, Raymond TT, Sutton RM, Hazinski MF, Atkins DL. 2019 American Heart Association Focused Update on Pediatric Advanced Life Support: An Update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Pediatrics. 2020 Jan;145(1):e20191361. doi: 10.1542/peds.2019-1361.

Epub 2019 Nov 14. PMID: 31727859.

- Duff JP, Topjian AA, Berg MD, Chan M, Haskell SE, Joyner BL Jr, Lasa JJ, Ley SJ, Raymond TT, Sutton RM, Hazinski MF, Atkins DL. 2019 American Heart Association Focused Update on Pediatric Basic Life Support: An Update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2019 Dec 10;140(24):e915-e921. doi: 10.1161/CIR.0000000000000736. Epub 2019 Nov 14. Review. PubMed PMID: 31722546.
- 21. Cutshaw D, O'Gorman T, Beck Dallaghan G, Swiman A, Joyner BL Jr., Gilliland K and Shea P. Clinical Skills Simulation Complementing Core Content: Development of the Simulation Lab Integrated Curriculum Experience (SLICE). Med Sci Educ; 29, 643–646 (2019). https://doi.org/10.1007/s40670-019-00771-9.
- 22. Waltz, M., Cadigan, R.J., **Joyner, B.**, Ossman, P., Davis, A. Perils of the Hidden Curriculum: Emotional Labor and 'Bad' Pediatric Proxies. J Clin Ethics. 2019 July 9; 30(2):154-162. [PMID: 31188792]
- 23. Duff JP, Topjian A, Berg MD, Chan M, Haskell SE, **Joyner BL Jr**, Lasa JJ, Ley SJ, Raymond TT, Sutton RM, Hazinski MF, Atkins DL. 2018 American Heart Association Focused Update on Pediatric Advanced Life Support: An Update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2018 Dec 4;138(23):e731-e739. doi: 10.1161/CIR.000000000000012. PMID: 30571264.
- 24. *Joyner BL Jr.* Second Thoughts: Does Family Presence in the Trauma Bay Help or Hinder Care. *AMA J Ethics*. 2018 May 1; 20 (5): 507-512
- 25. Atkins DL, de Caen AR, Berger S, Samson RA, Schexnayder SM, Joyner BL Jr, Bigham BL, Niles DE, Duff JP, Hunt EA, Meaney PA. 2017 American Heart Association Focused Update on Pediatric Basic Life Support and Cardiopulmonary Resuscitation Quality: An Update to the American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2017 Nov 6. [PMID: 29114009]
- 26. Low A, Blasius K, Joyner B L, et al. (2017) Preparing for Rare Intraoperative Emergencies: Pediatric Massive Transfusion Protocol. Cureus 9(6): epublished 6/1/2017
- 27. Ciccone EJ, Christian RB, Lercher DM, McNeal-Trice K, Joyner BL Jr. A 15-Year-Old Boy with Progressive Weakness After a Spider Bite. Clin Pediatr (Phila). 2017 Oct;56(12):1173-1176. doi: 10.1177/0009922816672452. Epub 2016 Oct 18. PMID: 27798387.
- 28. Willie C, Chen F, Joyner BL, and Blasius K. Really Good Stuff: Using High-Fidelity Simulation for Critical Event Training. Med Educ. 2016 Nov (50): 1161-1162. [PMID: 27762015]
- 29. Antoon JW, Metropulos D, and Joyner Jr., BL. Evans Syndrome Secondary to Common Variable Immune Deficiency. J Pediatr Hematol Oncol. 2016 Apr; 38(3): 243-5. [PMID: 26950085]
- 30. Atkins DL, Berger S, Duff JP, Gonzales JC, Hunt EA, Joyner BL, Meaney PA, Niles DE, Samson RA, Schexnayder SM. Part 11: Pediatric Basic Life Support and Cardiopulmonary Resuscitation Quality: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care (Reprint). Pediatrics. 2015 Nov; 136 Suppl 2: S167-75. [PMID: 26472999]
- 31. Atkins DL, Berger S, Duff JP, Gonzales JC, Hunt EA, Joyner BL, Meaney PA, Niles DE, Samson RA, Schexnayder SM. Part 11: Pediatric Basic Life Support and Cardiopulmonary Resuscitation Quality: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2015 Nov 3;132(18 Suppl 2): S519-25. [PMID: 26950085]
- 32. Phillips MR, Khowy AL, Bortsov, AV, Marzinsky A, Short K, Cairns BA, Charles AG, McLean SE, and Joyner Jr. BL. A Non-Invasive Hemoglobin Monitor in the Pediatric Intensive Care Unit. J Surg Res. 2015 May 1,' 195 (1):257-62. Epub 2015 Jan 9. [PMID: 25724765]
- 33. Seigel J, Whalen L, Burgess E, Joyner Jr. BL, Purdy A, Saunders R, Munn LT, Yip T, Willis TS. Successful Implementation of Standardized Multidisciplinary Bedside Rounds, Including Daily Goals, in a Pediatric ICU. Jt Comm J Qual Patient Saf 2014. Feb; 40(2): 83-90. [PMID: 24716331]
- 34. Jones SW, Zhou H, Ortiz-Pujols SM, Maile R, Herbst M, Joyner BL Jr, Zhang H, Kesic M, Jaspers I, Short KA, Meyer AA, Peden DB, Cairns BA, Noah TL. Bronchoscopy-Derived Correlates of Lung Injury following Inhalational Injuries: A Prospective Observational Study. PLoS One. 2013 May 17;8(5):e64250. [PMID: 23691180]

- 35. Willis MS, Cairns BA, Purdy A, Bortsov AV, Jones SW, Ortiz-Pujols Shiara M, Willis TS, Joyner BL Jr. Persistent lactic acidosis after chronic topical application of silver sulfadiazine in a pediatric burn patient: a review of the literature. Int J Burn Trauma 2013;3(1):1-8. [PMID: 23386980]
- 36. Joyner BL Jr, Jones SW, Cairns BA, Harris BD, Coverstone AM, Abode KA, Ortiz-Pujols SM, Kocis KC and Noah TL. DNA and Inflammatory Mediators in Bronchoalveolar Lavage Fluid from Children With Acute Inhalational Injuries. J Burn Care Res. J Burn Care Res. 2012 Nov 6. [PMID: 23128126]
- 37. Joyner BL Jr, Boyd JM, Kocis KC. Mortality after fluid bolus in African children with sepsis. N Engl J Med. 2011; 365(14):1349-50. [PMJD: 21991963]
- 38. *Joyner BL*, Fiorino EK, Matta-Arroyo E, and Needleman JP. Cardiopulmonary Exercise Testing in Children and Adolescents with Asthma Who Report Symptoms of Exercise-Induced Bronchoconstriction. *Journal of Asthma*. 2006; 43:675-678. [PMID: 17092848]
- 39. Joyner B., Soto, M.A. Brachial Plexus Injuries in the Neonate. Pediatrics In Review. 2006; 27: 238-239. [PMID: 16740808]
- 40. *Joyner B., Levin T,* Newman B. Goyal, R. Focal Nodular Hyperplasia of the Liver Following Tumor Therapy: A Report of Three Cases. *Pediatric Radiology.* 2005. 35(12); 1234-1239. [PMID: 16052333]

D. Poster Presentations

- 1. Wagner SP, Lee E, **Joyner BL Jr**, Jordan SG, McGinty KA. Keeping it Real: The Benefits of Using Standardized Patients and High Fidelity Simulators in in-situ Simulations in Contrast Reaction Management Training. RSNA 105th Scientific Assembly and Annual Meeting, Chicago, IL, Dec 1-6, 2019.
- 2. Mathew A, Kimmel M, Kellish A, Remer M, Hobbs G, Willie C, **Joyner B,** Blasius K. *Calling for Help! A High-Fidelity Simulation Program for Critical Event Training in Pediatric Sedation Cases in Remote Locations*. Given at: Society for Pediatric Anesthesiology (SPA) Annual Meeting, Phoenix, AZ, 3/24/2018 (Solicited).
- 3. Tilley A, Ciccone E, **Joyner Jr. BL**, Fitzgerald E. Pre-Departure Simulation Curriculum: Improving Learner Preparedness for Global Health. Associate Pediatric Program Directors Spring Meeting. Atlanta, GA. March 20-23, 2018
- 4. Low A, Waller E, **Joyner B**, Su L, Blasius K. *Preparing for Rare Intraoperative Emergencies: Pediatric Massive Transfusion Protocol*. Given at: The 9th International Pediatric Simulation Symposia and Workshop, Boston, Massachusetts, 6/3/2017 (Solicited).
- 5. O'Gorman T, Cutshaw D, Swiman A, Hobbs G, **Joyner BL Jr**., Gilliland K and Shea P. SLICE: A Basic Clinical Skills Simulation Experience for Medical Students. Society for Simulation in Healthcare International Meeting on Simulation in Healthcare. Los Angeles, CA. January 14, 2018.
- 6. Waltz M, Cadigan J, Davis A, **Joyner BL Jr**, Ossman P. Sometimes families don't recognize how much they're asking of clinicians: Medical trainees, emotional labor and bad patients. American Society for Bioethics and Humanities. Kansas City, MO. Oct 19-22, 2017. (Platform presentation)
- 7. Hart J, **Joyner BL Jr**, McEntee J, Zwemer E, Hipps J, McNeal-Trice K, Dellon, E. The Simulated Family Meeting: A Standardized Approach to a Communication Curriculum and Assessment of the ACGME Pediatric Milestones. American Academy of Pediatrics (AAP) Experience: 2017 Section on Hospice and Palliative Medicine. Chicago, IL, Sept. 16-19, 2017.
- 8. Blasius K, Baboolal H, Singh D, Smith M, Chen F, Isaak R, McDaniel M, Gurnaney H, Joyner B, Hobbs G, Lupa C. Professionalism and Communication Assessment for Milestones in Pediatric Anesthesia: Thinking Outside the Box. Society of Pediatric Anesthesia Annual Meeting. Austin, TX, March 3-5, 2017.
- 9. Smith M, Chen F, Isaak R, Baboolal H, Singh D, Lupa C, McDaniel M, Joyner B, Hobbs G, Blasius K. Implementation of an Advanced Level Milestone Assessment Program Utilizing High Fidelity Simulation. 17th International Meeting on Simulation In Healthcare, Orlando, Jan. 30, 2017
- 10. Willie C, Tisch J, Low A, Hobbs G, Berman J, Krakowski J, Joyner B, Blasius K. Perception of Cognitive Aids: An Educational Simulation Experience to Assess Cognitive Aid Utilization by Our Pediatric Perioperative Team. American Society of Anesthesiology Annual Meeting. Chicago, Oct. 22, 2016.

- 11. Brassfield E, Cadigan J, Street S, Kuhn J, Ossman P, Joyner BL Jr., & Davis A. Confidence in Ethical Reasoning. American Society in Bioethics & Humanities. Washington, DC, Oct. 6-9, 2016.
- 12. *Joyner BL*, *Blasius KR*, *Kellish A*, *Pumphrey MA*, *Hassing S*, *Hobbs GW*, *Willis TMS*. Improving Code Sepsis Response Times with Hands-On Simulation versus an Electronic Alert. 8th International Pediatric Simulation Symposium and Workshops. Glasgow, UK. May 9-11, 2016.
- 13. Davis A, Cadigan J, Joyner BL, Kuhn J, Lovrich R, Ossman P. UNC Residents Self-Assessed Ethics Knowledge and Their Clinical Practice: Preliminary Survey Findings. UNC Academy of Educators Annual Meeting. Chapel Hill, NC. May, 2016.
- 14. *Bjornstad EC, Stafford R, McNeal-Trice K and Joyner BL Jr.* Initiative for Improving Pediatric Clinical Education in Tanzania. 7th Annual CUGH Conference: Bridging to a Sustainable Future in Global Health. San Francisco, CA. April 9-11, 2016.
- 15. *Hobbs G, Kellish A, Hassing S, Pirzadeh A, Joyner BL, Aliaga S, McNeal-Trice KA*. Resident inclusion into in-situ interprofessional simulation curriculum. Abstract 3937. 2016 Association of Pediatric Program Directors (APPD) Spring Meeting. New Orleans, Louisiana. March 30-April 2, 2016.
- 16. Blasius K, Willie C, Hobbs GW, McNaull P, Baboolal H, & Joyner Jr. BL. It Takes a Team to Make a Team: Building Blocks for our Pediatric Operative Team. 16th International Meeting on Simulation in Healthcare. January 2016.
- 17. Key CA, Kihlstrom MJ, Hobbs GW, Marx S, & Joyner Jr. BL. Bridging the Gap: Detriment of Medical Jargon in Physician-Family Communication. The American Academy of Pediatrics (AAP) Annual Meeting. Washington DC. October 24-27, 2015.
- 18. Kellish A, Pirzadeh A, Blasius K, Hassing S, Hobbs G, Joyner Jr. BL. Pediatric Simulation Committee A Quest for Quality Improvement in the NC Children's Hospital! Given at: UNC Quality Fair Presentations, Chapel Hill, NC, 10/15/2015 10/16/2015
- 19. *Blasius K, St Romain K, Willie C, Bishop S, Hobbs G, Kahn J, Conrad N, Joyner Jr. BL.* Empowering Our Team: Utilization of TeamSTEPPS to Create a Safe Practice Environment. Given at: UNC Quality Fair Presentations, Chapel Hill, NC, 10/15/2015 10/16/2015
- 20. Willie C, Jutson J, Waller E, Baboolal H, McNaull P, Joyner Jr. BL, Blasius K. Using High-Fidelity Simulation for Pediatric Critical Event Training: Improving the Operating Room Response Times. American Society Anesthesia. San Diego, CA. October 2015.
- 21. *Durham, C. F., Fischer, Ill, W, and Joyner, Jr., B.* Ebola: A healthcare game changer Using interprofessional simulation for preparedness. 14th Annual International Nursing Association for Clinical Simulation & Learning, Atlanta Marriott Marquis, Atlanta, GA. June 10-13, 2015.
- 22. Willie C, Jutson J, Joyner B, Baboolal H, McNaull P, Blasius K. Pediatric Intraoperative Emergencies: Educating Our Perioperative Team. Southern Group on Educational Affairs of the AAMC, Charlotte, NC. April 24, 2015.
- 23. Willie C, Jutson J, Waller E, Baboolal H, McNaull P, Joyner B, Blasius K. Pediatric Intraoperative Emergencies: How Ready Is Our Perioperative Team? Society for Pediatric Anesthesiology Annual Meeting. March, 2015.
- 24. Ciccone EJ, Lercher DM, Nidel M, McNeal-Trice K, Joyner BL Jr. Paralyzed by Fear: A Confusing Case of Lower Extremity Weakness After a Spider Bite. Society of Hospital Medicine. National Harbor, Maryland. March 31, 2015.
- 25. Johnson M, Javalkar K, Cuttance J, Philips A, Ocegueda S, Ferris M and Joyner B. The LISTEN Project: Literacy and Self-Management Evaluation in North Carolina Children's Hospital. Presented at UNC School of Medicine Student Research Day. Chapel Hill, NC. January 12, 2015.
- 26. Willie C, Waller E, Jutson J, Taylor J, Joyner B, Baboolal H, McNaull P, Blasius K. Children's Operating Room on the Ready. University of North Carolina Quality Expo, October 29-30, 2014.
- 27. Wiggins R, Martin BK, Dewalt D, Lovrich JR, Hieronymus M, Joyner, Jr. BL. The Effect of Language Complexity and Health Literacy on Patient Comprehension in the Emergency Department. European Society of Emergency Medicine. Amsterdam, Netherlands. September 28-October 1, 2014.

- 28. Katznelson JH, Joyner BL, Ghazarian S, Mills WA. Evaluation of a Pediatric, In-Situ, Tele-Simulation Program for Critical Access Hospital Emergency Department Staff. Pediatric Academic Societies & Asian Society for Pediatric Research. Vancouver, Canada. May 3-6, 2014.
- 29. Katznelson JH, Golike ES, Tolleson-Rinehart S, Joyner BL, Mills WA. A Valid and Reliable Real-Time Checklist for Assessment of Team Performance During Simulated Pediatric Resuscitation Scenarios. Pediatric Academic Societies & Asian Society for Pediatric Research. Vancouver, Canada. May 3-6, 2014.
- 30. Kihlstrom MK, Daly ME, Guimbellot JS, Peterson-Carmichael SL and Joyner BL. Acute febrile neutrophilic dermatosis presenting with severe bronchial involvement. Society of Critical Care Medicine Annual Critical Care Congress. San Francisco, CA. January 9-15, 2014.
- 31. *Jacobson KA*, *Cabellon M and Joyner BL*. Duplicated IVC and Extensive Pulmonary Emboli Unmasked by a Case of Acute Appendicitis. Society of Critical Care Medicine Annual Congress. San Francisco, CA. January 9-15, 2014.
- 32. Scolaro KL, Durham CF, and Joyner BL Jr. Incorporation of Herbal Products into Interprofessional Simulation. 16th Annual Nonprescription Medicines Academy Conference. Cincinnati, OH. September 26-28, 2013.
- 33. Lopez C, Joyner B, McLean S, Gold S, Trembath D, Pirzadeh A. ECLS for Septic Schock and Typhlitis During Induction Chemotherapy. International Course for ECMO and Short-Term Circulatory and Respiratory Support. June 27-28, 2013. Paris, France.
- 34. *Smith R and Joyner BL*. Improving Resident Performance in Code Scenarios via a Case-Based Mock Code Curriculum with High Fidelity Simulation: A Quality Improvement Project. Presented at the 2012 UNC Department of Pediatrics Evening of Scholarship. Chapel Hill, NC, May 10, 2012.
- 35. *Joyner BL*, *Kocis K*, *Harris B*, *Cairns B*, *Noah TL*. Airway Inflammatory Responses in Pediatric Patients with Inhalation Injury. Presented at The 2009 ATS International Conference in San Diego, California, May 15th-20th, 2009.
- 36. Fiorino EK, Joyner BL, Matta-Arroyo E, and Needleman JP. Exercise Limitation in Children and Adolescents during Cardiopulmonary Exercise Testing (CPET): The Role of Body Habitus. Presented at The 2006 ATS International Conference in San Diego, California, May 19-24, 2006.

E. Case Study (Web Based)

1. Brewer E, Rost E, Cozart R, Davidson G, Durham C, Hobbs GW, **Joyner BL**, & Scolaro KL. *A Veteran and His Dog*. Association of American Veterinary Medical Colleges (AAVMC)/Association for Prevention Teaching and Research (APTR). One Health Interprofessional Education Initiative. One Health Scholar Project. February 5, 2016. http://www.aavmc.org/one-health/case-studies.aspx.

F. Refereed Other Products of Scholarship

- 1. Joyner BL Jr. Medical Simulation: The Missing Link in Achieving Safer, More Cost-Effective Care. *NCMJ*, 2023; 84(3), doi:10.18043/001c.74504.
- 2. Topjian A, Raymond T, Schexnayder S, **Joyner BL Jr**. "AHA Addresses Questions About New PALS Guidelines." *EMS World*, 12 December 2020, https://www.emsworld.com/article/1225355/aha-addresses-questions-about-new-pals-guidelines. Editorial
- 3. Smith M, Shea P, **Joyner B**, Blasius K. (2017) The Challenging Family Conversation Delivering Bad News and Ethical Considerations in the Setting of Pediatric Traumatic Brain Injury with Potential Abuse. Pediatric Critical Care Medicine Fellowship OSCE Ethical Behaviors, New Curriculum Development, University of North Carolina, Chapel Hill.
- 4. Smith M, **Joyner B,** Blasius K, Shea P. (2017), Status Epilepticus, Pediatric Critical Care Medicine Fellowship OSCE Transition of Care, New Curriculum Development, University of North Carolina, Chapel Hill.
- 5. Smith M, **Joyner B**, Blasius K. Shea P. (2017), Post-surgical Cardiogenic Shock Management, Pediatric Critical Care Medicine Fellowship OSCE Inter-professional Teamwork and Communication, New Curriculum Development, University of North Carolina, Chapel Hill.

- 6. Smith M, **Joyner B**, Blasius K. (2017) The Challenging Family Conversation: Disclosing Medical Errors Fentanyl Drug Administration Error in a Sedated Intubated Patient in the Pediatric Intensive Care Unit, Pediatric Critical Care Medicine Fellowship OSCE Ethical Behaviors, New Curriculum Development, University of North Carolina, Chapel Hill
- 7. Smith M. **Joyner B**, Blasius K. (2017) The Shared Mental Model: Acute Respiratory Failure Management in a Patient with Acute Lymphoid Leukemia (ALL), Pediatric Critical Care Medicine Fellowship OSCE Inter- professional Teamwork and Communication, New Curriculum Development, University of North Carolina, Chapel Hill.
- 8. Smith M., **Joyner B**, Blasius K. (2017) Physician to Physician Transition of Care, Pediatric Critical Care Medicine Fellowship OSCE Transition of Care, New Curriculum Development, University of North Carolina, Chapel Hill.

G. Digital and Other Novel Forms of Scholarship

- Joyner, B. "When a hospital is overwhelmed with COVID-19 patients, deciding who gets critical care."
 Interview by Lynn Bonner. NC Policy Watch February 2, 2021. Electronic.
 http://www.ncpolicywatch.com/2021/02/02/when-a-hospital-is-overwhelmed-with-covid-19-patients-deciding-who-gets-critical-care/
- 2. **Joyner BL Jr.** Leadership During COVID-19 Pandemic Crisis. In: Smithson S, Foster J, Bogdewic S (directors). Medical Management of COVID-19 Course: UNC School of Medicine & North Carolina AHEC. Available at https://icollaborative.aamc.org/resource/5110/.

6) Teaching activities

Physical Abuse Simulation Lab Training for Multidisciplinary Team

2018-2020 Instructor and Facilitator for Simulation Lab Physical Abuse Training for local multidisciplinary team that includes medical providers, law enforcement officials and social work providers that work at community hospitals. 6 sessions, 30 participants per session.

Radiology Residency Simulation Training Program

2017- 2020 Instructor and Faculty Advisor for Radiology Residency Simulation Training Program, NC Memorial Hospital. (Chapel Hill, NC)

Pediatric Anesthesia Training Programs

2014-Current	Participant, Perioperative Emergency Team Training (Monthly), Pediatric Operating Rooms (Chapel Hill, NC)
2015-2020	Evaluator, Pediatric Fellowship Milestone Evaluation Program, NC Children's Hospital. (Chapel Hill, NC)
2015-2019	Pediatric Anesthesia Fellows Bootcamp, NC Children's Hospital. (Chapel Hill, NC).

Course Director

Sep 27, 2022

2013-2021	Inter-Professional Teamwork & Communication: Keys to Patient Safety Students: 2nd Year Medical, 3rd
	Year Pharmacy, & Senior Nursing Students Course enrollment:

2018: 10 students 2017: 17 students 2016: 12 students 2015: 25 students 2014: 24 students 2013: 15 students

2012-2014 Surgery Critical Care Selective for 4th year Medical Students

2010-2012 Pediatric Critical Care Selective for 4th year Medical Students

Pediatric Residency Simulation

rediatric Residency Simulation		
201 1-2017	Faculty, Monthly Pediatric High-Fidelity Simulation Course (Chapel Hill, NC)	
2011-2017	Faculty, Annual Pediatric Critical Care 'Boot Camp' for Residents (Chapel Hill, NC)	

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2011	Director & Founder, Annual Pediatric Resident Simulation Course (Chapel Hill, NC)
Invited Spea	ker
2023	
2023	Faculty, Senior East Coast Boot Camp, John's Hopkins University Children's Hospital (Baltimore, MD)
2022	Joyner Jr, BL. "Simulation in Healthcare: An Educational Technique for the Modern Educator." Celebrating Medicine: North Carolina Medical Society's LEAD 2022 Health Care Conference. Raleigh Marriott Crabtree Valley. Raleigh, NC. October 15
2022	Faculty, East Coast Boot Camp, Children's Hospital of Philadelphia (Philadelphia, PA). July 29-31
2022	Joyner Jr, BL. "Simulation in Medicine: Viewing Simulation as the Means and not the End." Graduate Medical Education Conference: Together Towards Tomorrow. Wilmington, NC. April 21
2019	Waltz, M., Davis, A., Cadigan, R.J., Smith, M., Jaswaney, R., Joyner, BL Jr . "We Know It When We See It: Reducing Subjectivity in the Assessment of Professionalism Milestones." Academy for Professionalism in Health Care Annual Meeting, New Orleans, Louisiana, May 15-17.
2014-2019	Faculty, Senior East Coast Boot Camp, John's Hopkins University Children's Hospital (Baltimore, MD)
2010-2019	Faculty, East Coast Boot Camp, Children's Hospital of Philadelphia (Philadelphia, PA)
2018	Joyner Jr. BL and Kellish AA. "The What, Why and How of Simulation in 2018" Grand Rounds, Albert Einstein Hospital. Philadelphia, PA. June 5, 2018.
2018	Blasius K, Dalal P, Gurnaney H, Hales R, Joyner B , Lim D, Man J, McDaniel M, Ng E, Patel S, Rask J, Singh D, Watkins S, Willie C, Young D. Simulation Instructor Workshop Part 1: Simulation in our Pediatric Anesthesia World: An Introduction to Techniques and Tools for Improving Clinical Practice and Teaching - <i>Sponsored by the Society for Pediatric Anesthesia Simulation Special Interest Group (SPA SIG)</i> , (Workshop Coordinator), Society for Pediatric Anesthesiology (SPA) Annual Meeting, Phoenix, Arizona, 3/23/2018 (Invited).
2018	Blasius K, Joyner BL Jr. , Durham C, Himmel M, Kellish A. Change Practice, Develop Policies and Be Successful in your Institution. Society for Simulation in Healthcare International Meeting on Simulation in Healthcare. Los Angeles, CA. January 17, 2018.
2017	Joyner BL Jr. (Faculty). Teamwork and Communication During Pediatric Crises. 71st Annual Post Graduate Assembly in Anesthesia. Marriot Marquis, New York, NY. December 12, 2017.
2017	Blasius K., Joyner BL Jr. , Durham C., Alderman J., Scolaro K., & Kellish A. The Heart of the Matter: Improving Collaboration and Communication through Interprofessional Education (IPE) (Course Director), 17 th International Meeting for Simulation in Healthcare (IMSH), Orlando, 1/29/2017
2016	Joyner Jr., BL & Durham C. Preparing Collaborative Practice-Ready Practitioners to Transform Patient Care. NY Simulation Center at New York University Medical Center. NY, NY. October 19, 2016.
2016	Joyner Jr., BL, Durham C, & Scolaro K. Interprofessional Simulation and Patient Safety. Grand Rounds, Lake Erie College of Osteopathic Medicine. Bradenton, FL. September 7, 2016.
2016	Joyner BL , Clark, S, Saunders, B, Durham CF. Using Interprofessional Simulation to Improve Interdisciplinary Teamwork and Communication. Shaping Systems Collaborative #5. The Lusk Center. Greensboro, NC. May 20, 2016.
2016	Invited Poster Moderator, 8th Annual International Pediatric Simulation Symposia and Workshops. Glasgow, Scotland. May 9-11, 2016
2016	Alderman JT, Blasius KR, Durham CF, Kihlstrom MK, Scolaro KL, Joyner BL. Workshop:

Annual International Nursing Association for Clinical Simulation & Learning, Atlanta Marriott Marquis, June 10-13, 2015. Atlanta, GA.

Interprofessional Education and Simulation: What? So What? Now What? Society for Simulation in Healthcare International Meeting on Simulation in Healthcare. San Diego, CA. January 16, 2016.

Kellish A, Joyner BL. High stakes emergency training at a budget friendly price. Workshop at 14th

Durham, C.F. and Joyner, Jr., BL. "What? So What? & Now What?-Examining Interprofessional

2015

	Education in a New Light." Workshop at Robert Morris University IPE Symposium. May 15, 2015. (Pittsburgh, PA).
2015	Durham, C. F., Joyner , Jr. , B. , Scolaro, K., & Sherwood, G. Facilitation Skills to Break Down Identified Barriers to Communication. NC AHEC Continuing Interprofessional Education (CIPE) Faculty Development Institute (Webinar). February, 20, 2015.
2015	Co-Presenter, "Interprofessional Collaboration- A Means to Improve Patient Safety," NURS588.001 Leadership in Health Care Organizations. UNC School of Nursing. (Chapel Hill, NC)
2014	Presenter, "Diabetic Emergencies in the PICU." Current Concepts in Pediatric Critical Care Nursing Conference. (Chapel Hill, NC)
2013	Presenter, "Status Asthmaticus in the Pediatric Patient: Management and Treatment Strategies." Pediatric Critical Care Nursing Conference. (Chapel Hill, NC)
2006-2013	Presenter, Critical Care Nursing Trauma Series. (Chapel Hill, NC)
2012	Presenter, Transition to Internship, "Airway Management." Department of Pediatrics. (Chapel Hill, NC)
2012	Expert Panel Speaker, "Resuscitation of Critically Ill Children in Resource-Poor Countries" Medecins Sans Frontieres. (Brussels, Belgium)
2010	Presenter, Transition to Internship, "Airway Management." Department of Pediatrics. (Chapel Hill, NC)
2010	Speaker, Pediatric Update Conference "Interpretation of Pediatric Chest Radiographs: A Primer for the Non-Radiologist." (Chapel Hill, NC)
2010	Speaker, Current Trends in Pediatrics, "Ethics in Pediatric Critical Care." (Chapel Hill, NC)
2010	Speaker, Pediatric Grand Rounds: Status Epilepticus in the Pediatric Patient. (Wilmington, NC)
2010	Speaker, North Carolina Society for Respiratory Care: Monitoring in the Critically Ill Pediatric Patient. (Wilmington, NC)
2010	Speaker, Department of Anesthesia Grand Rounds, "Inhalation Injury in the Pediatric Patient." (Chapel Hill, NC)
2010	Speaker, Current Trends in Pediatric Critical Care. (Chapel Hill, NC)
2009	Speaker, North Carolina EMS Society, Emergency Medicine Today Conference: Pediatric Airway Management. (Greensboro, NC)
2009	Speaker, North Carolina Society for Respiratory Care: Current Strategies for the Management of Meningococcemia. (Winston-Salem, NC)
2008	Guest Lecturer, Pediatric Trauma Day. (Chapel Hill, NC)
2007	Guest Lecturer, Pediatric Trauma Day. (Chapel Hill, NC)
2006	Department of Pediatric Grand Rounds at Montefiore Medical Center: Necrotizing Fasciitis and the Pediatric Patient. (Bronx, NY)

Pediatric Critical Care Fellow Lectures

2006-Current Presenter, Pediatric Critical Care Fellow Lecture Series Topics Covered

Anemia in the Critically Ill Patient

Vasopressors

Pulmonary Hypertension

Management of the Post-Operative Cardiac Patient

Stroke in the Pediatric Patient

TCP pathophysiology and management CRRT in the Pediatric Critical Care Patient

Hemoglobinopathies End of Life Care in the ICU Diabetic Ketoacidosis

Critical Care of the Pediatric Burn Patient Thyroid Function in Critical Illness

Pediatric Resident Lectures

2009 - Current Ethics in Critical Care Series for Pediatric Residents

Topics Covered:

Do Not Resuscitate/Do Not Intubate Orders

Consent/Assent of the Minor Child

Secret Keeping in Pediatrics Limitations of Therapy

Moral Distress

Conflict among Care Providers Palliative Care in Pediatrics Varying Ethical Constructs

2008-Current Instructor, Critical Care Medicine Core Curriculum for UNC

Topics Covered:

Management of Diabetic Ketoacidosis Interpretation of Blood Gases Pediatric Palliative Care

Delivering Bad News

Communication with Families Basics of Mechanical Ventilation

Management of Burns for the Pediatrician

Medical Student Education

2009-2019	Instructor, Transition to Pediatric Internship Course for Fourth Year Medical Students, "Respiratory Support for Pediatric Patients" Session. (Kenya McNeil-Trice, Course Director)
2012-2019	Instructor, Fourth Year Medical Student Capstone Course, "Delivering Bad News/Medical Error Disclosure's Session. (Peadar Noone, Course Director)
2009-2017	Small Group Facilitator, Pathophysiology of Respiratory Diseases. (Ashley Henderson, MD and Peadar Noone, MD, Course Directors)
2015-2016	Instructor, First-Year Medical Student Lecture, Transition from Fetal to Extrauterine Life. (Ashley Henderson, MD and Scott Randell, PhD, Course Directors)
2007-2010	Preceptor, Introduction to Clinical Medicine in Pediatrics for Second Year Medical Students. (Kenya McNeil-Trice, Course Director)

7) Grants

T32 HL166141 (Doerschuk, Contact PI, Noah, Boucher) 07/31/2023-06/30/2028

NIH/NHLBI

Role: member of the Oversight Committee

Title: UNC Research Training Program in Respiratory Diseases and Critical Care

Completed

Award Period	Name (Sponsor Number)	<u>Category</u>	Role	<u>Amount</u>	Percent Effort
2022-Current	P-ICECAP	Biomedical	Site-Principal		1%
	(<u>NCT05376267</u>)		Investigator		
7/2017-6/2018	AHEC Innovations Grant	Educational	Co-Investigator	\$50,000	10%
7/2017-6/2019	Governor's Crime Commission	Training/Educational	Principal Investigator	\$61,622.50	10%
9/2017-9/2019	AAP CATCH Grant	Training/Educational	Principal Investigator	\$2,000.00	2%
2012	Carolina Promise Grant	Biomedical	Investigator	\$19,817	2%

7/2008-6/2009	T32 (NIH) HL007106-32	Training	Trainee	\$52,392	75%
11/2008-6/2009	Carolina Promise Grant	Biomedical	Investigator	\$3,000	5%
5/2009	ATS Minority Trainee	Travel	Investigator	\$1,500	-
	Travel Award				

Other Grants

Award Period	Name (Sponsor Number)	Category	Role	Amount
7/2016-6/2017	Montross Basketball Camp*	Educational	Faculty lead	\$100,000
7/2015-6/2016	Montross Basketball Camp*	Educational	Faculty lead	\$100,000

^{*}Served as the primary coordinator and lead for the educational funds that were obtained to start the pediatric simulation program within the Department of Pediatrics Simulation Program

8) <u>Professional Service</u>

Hospital

Member, UNCHealth Drug Shortage Task Force
Co-Chair, UNCHealth Triangle West Strategy Group, Reputation Sub-Group
Medical Director, UNC Health Nursing Education Office
Co-Chair, UNC Health Medical Center Operating Plan, People Sub-Group
Member, Professional Liability Advisory Committee (PLAC)
Vice-Chair, Hospital Ethics Committee
UNC Faculty Practice (FP) Executive Board
UNC Faculty Practice (FP) Benefits and Exemptions Committee
Member, UNC Hospitals Pharmacy and Therapeutics Committee
Associate Director, UNC Healthcare Ethics Committee Lead Consultant Group
Member, UNC Hospitals Ethics Committee
Faculty Advisor, NC Children's Hospital Pediatric Simulation Committee
Physician Lead, UNC Healthcare TeamSTEPPS Implementation Team
Associate Medical Director for Pediatric Transport
Member, Hospital Trauma Committee

School of Medicine

2023-Current	Co-Chair, UNC School of Medicine Strategic Planning Committee
2020-Current	Vice-Chair of Quality and Safety, Department of Pediatrics
2015-Current	Chief, Division of Pediatric Critical Care Medicine
2019-2023	Member, UNC Clinical Learning Environment Review Taskforce
2013-2023	Member, UNC SOM Student Promotions Committee
2018-2020	Leadership Council, Academy of Educators
2016-2020	Vice-Chair, Hospital Inpatient Services, Department of Pediatrics
2013-2020	Co-Director, Clinical Skills, and Patient Simulation Center
2014-2015	Director, Pediatric Critical Care Fellowship Program
2013-2015	Interim Chief, Division of Pediatric Critical Care Medicine
2012-2015	Class Advisor, UNC Pediatric Residency Class of 2015
27 2022	

Benny Levander Joyner, Jr., M.D., M.P.H.	
2013-2014	Associate Program Director, Pediatric Residency Program
2010-2014	Member, Resident Selection Committee (Department of Pediatrics)
2012	Member, UNC SOM Curriculum Task Force
2012-2013	Member, Department of Anesthesia Simulation Committee
2011-2013	Member, Education Committee (Department of Anesthesia)
2011	Member, Liaison Committee on Medical Education UNC SOM Committee Representative
2011	Member, UNC School of Medicine Strategic Plan Task Force
<u>University Service</u>	
2015-2021	Member, Faculty Executive Committee, UNC-CH Faculty Council
2014-2019	Member, Agenda Committee, UNC-CH Faculty Council
2013-2018	Carolina Covenant Mentor
2012-2018	Faculty Council Representative
Editorial Board Membership	
2022-Current	Manuscript Reviewer, Journal of the American Heart Association
2015-Current	Member, Pediatric Pulmonology Editorial Board Ad-Hoc Manuscript Reviewer
2017-Current	Manuscript Reviewer for Journal of Pediatric Hematology-Oncology
2012-Current	Manuscript Reviewer for Pediatric Pulmonology
2011-Current	Manuscript Reviewer for New England Journal of Medicine
2011-Current	Manuscript Reviewer for Critical Care Research and Practice
Professional Society Memberships	
2023-Current	Member, American Pediatric Society
2022-Current	Member, American Board of Pediatrics, Sub-Board of Pediatric Critical Care Medicine
2022-Current	Co-Chair, American Heart Association, Pediatric Basic Life Support Writing Group
2018-Current	Member, American Heart Association Pediatric Emphasis Group
2018-Current	Member, American Heart Association Pediatric Education Subcommittee
2018-Current	Member, American Heart Association Pediatric Advanced Life Support Guidelines Review Committee
2018-Current	Fellow, American College of Critical Care Medicine
2013-Current	Fellow, American Academy of Pediatrics
2006-Current	American Thoracic Society
2006-Current	Society of Critical Care Medicine
2018	Member, Center for Disease Control's Pediatric Sepsis Workgroup
2018-2020	Vice-Chair, Society of Simulation in Healthcare (Pediatric Section)
2015-2018	Member, American Heart Association Basic Life Support Guidelines Review Committee
International Service	
2016,2017, 2018	Westminster Presbyterian Church, Medical Mission Trip Port-au-Prince, Haiti
2011	UNC Project Uganda, Pediatric Critical Care Medical Mission Kampala, Uganda

2009 UNC Project Uganda, Cardiac Surgery Medical Mission

Kampala, Uganda

2006 Heartcare International Cardiac Surgery Medical Mission

San Salvador, El Salvador

Previous School of Medicine Activities

1998 Co-Coordinator, Student Health Action Committee (SHAC)

The University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Served as director of the free-clinic and student executive director for programs and operation

Community Service Activities

2023-Current Assistant Scout Master

Occoneechee Council, Boy Scout Troop 424 Immaculata Catholic Church

Durham, North Carolina

2013-Current Durham Summer Swim League Swim Meet Volunteer

Durham, North Carolina

2015-2020 Sunday School Teacher

Westminster Presbyterian Church Durham, North Carolina

2015-2020 Assistant Den Master,

Occoneechee Council, Cub Scout Pack 424 Immaculata Catholic Church

Durham, North Carolina

2014-2015 Durham Summer Swim League President

Durham, North Carolina

9) Teaching and Research Statement

As my career has developed, I have realized that my passions and strengths lie in the arena of educational scholarship and leadership development. Utilizing my formal training as an educator has proven extremely valuable and relevant to my medical career. It has allowed me to combine clinical expertise with my experience and training in adult educational theory to focus on curriculum development and expansion of training opportunities for medical trainees at all levels. While the scope of medical education is expanding, many issues—including technological innovations, work hour restrictions, the availability of information from a variety of sources—has led me to investigate novel ways of using technology in order to train students and to standardize the assessment of students being trained. This has resulted in my move away from assessing the effectiveness of simulation (this has already conclusively been proven to be efficacious) and toward investigating how to innovatively expand the use of simulation to reach more learners. I am researching how to better deliver this technology (simulation) given the variety of time and resource constraints facing healthcare today. All of this is to achieve the goal of improving care to our most vulnerable of patients.

The use of simulation in medicine has exploded. From the use of virtual simulation (aka-serious games) in order to assess content and fact recall all the way to mannequin-based simulation to assess individual and team performance as well as identify safety issues, simulation has proven to be a versatile and useful assessment and teaching tool with unlimited (however, in many cases, not validated) potential. My research has largely turned to developing simulation strategies utilizing high-fidelity technology for use in novel situations (e.g.-'hybrid' simulations-combining live actors and mannequins to simulation real world conditions to present rarely encountered but high-stake events such as end-of-life conversations surrounding a dying or deceased pediatric patient and the developing world of just-in-time simulation) or combining that technology with current telecommunication advances (i.e.-videoconferencing) to create methods to deliver simulation training and pediatric content expertise to remote locations. The goal of this is improve the training and comfort of providers that have limited exposure to critically ill pediatric patients.

Indeed, as I have gotten even more facile in simulation training, I have developed curricula and educational opportunities with providers and situations that are often not affiliated with simulation. These partnerships have resulted in exciting opportunities ranging from hybrid simulations in radiology to remotely-run simulation situations involving pediatric emergencies in critical access hospitals (tele-simulation). Additionally, it has led to exciting opportunities to explore the potential for the impact of simulation on patient outcomes-arguably the most elusive target facing those of us engaged in simulation education and research. These two areas of research I continue to explore and hope to expand over the coming years.

The past decade has reinforced the notion that educational scholarship and research is an active process involving both teacher and learner. This process of active engagement is what drives my teaching style and my teaching philosophy. The basic tenants of this philosophy hold that adults are internally-motivated, self-directed, goal-oriented, practical, relevancy-oriented and want to be respected for the life experiences and preexisting knowledge they bring are the very foundations of my own approach to teaching. Each situation or learning opportunity is grounded in the belief that adults want to develop and learn new skills and refine or improve the skills they already possess. These principles drive my interest in the use of simulation in the education of undergraduate and graduate medical trainees. Simulation is integral to the adult learning experience. It is my belief that the use of simulation will continue to revolutionize medical training as we know it. Indeed, my main goal is to highlight how we have been using simulation since the inception of the modern medical training era with the Flexner report. That is to say, the utilization of case-based examples with structured discussion and reflection is the essence of medical education. What we attempt to do with simulation is replicate that experience. However, that active, engaged experience need not be limited to the bedside and, more importantly, need not be prohibitively expensive. While simulation has taken on a veneer of an extremely expensive and highly technological venture, the reality of it is, and what I attempt to do every day is to demonstrate that technology doesn't make the experience, the active engagement of the learner and teacher (in conjunction with the latest data and evidence) do. Indeed, one of the most exciting opportunities lies in the development of team-based training exercises to improve teamwork in crisis situations as well as other Interprofessional Education (IPE) simulation opportunities in both the inpatient and outpatient clinical setting. These IPE opportunities allow for deeper insight of participants into the role of each team member and how they can allow each of these individuals to work to the top of their licenses.

As course director for an IPE course involving second-year medical students, senior nursing students and senior pharmacy students, I have seen the benefits of engaging these learners in interprofessional groups. Healthcare is a complex enterprise that relies upon highly functioning teams. As such, we owe it to our learners to not simply discuss this and then thrust them into this situation in a 'sink-or-swim' model but rather to model this behavior prior to the situation, to allow learners to practice in a safe environment not with actors but with their future colleagues. In our interprofessional class, to date, we have tried to accomplish this by employing adult educational theory to engage our learners and through interprofessional groups that consist of future colleagues functioning in their future roles. By

incorporating teamwork and communication skills with the latest in evidenced-based research in pediatric resuscitation, I am able to better train future students and pediatric trainees.

Many modalities exist to bring simulation to life. I attempt to do that through my various teaching engagements and educational offerings in which I have participated or developed during my 10 years as a faculty member. While simulation has taken on a veneer of an extremely expensive and highly technological venture, the reality of it is, and what I attempt to do every day is to demonstrate that technology doesn't make the experience, the active engagement of the learner and teacher do. Many modalities exist to bring simulation to life. I attempt to do that through my various teaching engagements and educational offerings in which I have participated or developed during my 13 years as a faculty member.

These teaching moments, these engagements, are all moving toward the goal of improving outcomes during critical events. To that end, my engagement in critical training events has allowed me to utilize this expertise in the development of pediatric basic and advanced life support (PBLS/PALS) guidelines updates through the American Heart Association. This involvement has allowed me to get a glimpse into the importance of incorporating data and evidence into the training experience. Starting over 5 years ago as a contributor to the guidelines and then quickly moving to a full member of the guidelines writing committee and currently as the Co-chair of the PBLS Guidelines writing committee, a member of the Emergency Cardiovascular Care Committee of the AHA and the Education and Special Programs Subcommittee. My engagement in these endeavors has broadened my scope by focusing not only on the content of pediatric resuscitation but also on the logistics of delivering this educational material. In short, my career has allowed me to fully understand and develop an expertise in the data and the science in the subject matter of pediatric emergency resuscitation, the educational techniques and instructional methods utilized to teach this subject matter and the logistics by which we can deliver this subject matter broadly. This has allowed me to think of pediatric critical care instruction and simulation and health care instruction in a broad and global way. The next stages in my career will reflect that by looking at delivery of pediatric resuscitation skills to a broad interprofessional team including lay bystanders, first responders, ED personnel and in hospital teams working in a seamless fashion.

10) Diversity, Equity and Inclusion Statement

As my career has grown, the role of Diversity, Equity and Inclusion have gained prominence in my daily practice. As an underrepresented minority myself, it is exquisitely important to develop future leaders that "look like me." Including diverse perspectives allows for a representation and voice for broader perspectives, it allows for us to know what we didn't know and by gaining that knowledge, we can better anticipate and overcome challenges and take better advantage of opportunities. Throughout my career, mentoring opportunities, coaching experiences and leadership training have all allowed me to understand the importance of leading a team. However, it has been through the cultivation of a diverse team as a leader in critical care-a team with a variety of racial, ethnic, gender, and political perspectives that have allowed me to grow as a leader and a clinician. These diverse perspectives identify my blind spots, shore up my weaknesses and increase my strengths. It is in the real-life application of building a diverse team that I have seen how, in the words of USAF General Jay Silveria, "Diversity is a force multiplier." Diverse perspectives allow us to grow, learn and anticipate challenges.

However, we should also understand what diversity means. Diversity is not simply diversity of race, ethnicity or religion. Indeed, diversity means (among other things) diversity in thought, diversity in perspective, diversity in socioeconomic status and diversity in ability. Diversity means that perspectives different than the majority, different than leadership-that allow new ideas to be presented, even those ideas that might be uncomfortable, are allowed to be brought forward and shared and heard. All these various points of view, coming together and being explored are what truly make a strong team.

It is by modelling this behavior of inclusion that I hope to impact future generations. As I think about the pediatric critical care team I have built, the students I have taught and trainees that I have helped mentor, I am fortunate to think of the diverse pipeline that I have helped funnel into the field. Highlighting the importance of understanding the impact of a lack of diversity on the care being provided to our most vulnerable patients. By highlighting these opportunities, I hope to encourage a deeper exploration in this field of study. Indeed, those individuals with which I have the fortune to mentor are already making a difference in the field of pediatric critical care by showing the diversity that can influence the outcome of patients and the lack of diversity impacts our ability to provide equitable and outstanding care.

1. Blewer AL, McGovern SK, Schmicker RH, May S, Morrison LJ, Aufderheide TP, Daya M, Idris AH, Callaway CW, Kudenchuk PJ, et al. Gender Disparities Among Adult Recipients of Bystander Cardiopulmonary Resuscitation in the

Public. Circ Cardiovasc Qual Outcomes. 2018;11:e004710. doi: 10.1161/circoutcomes.118.004710