

CURRICULUM VITAE

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Fralin Biomedical Research Research Institute, Virginia Tech
Center for Simulation, Research and Patient Safety, Carilion Clinic
Virginia Tech Carilion School of Medicine
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PERSONAL INFORMATION

A. Education:

Undergraduate Wittenberg University, Springfield OH, 2000 - 2004, BA, Psychology
Graduate George Mason University, Fairfax, VA, 2004 - 2006, MA, Psychology, Human Factors and Applied Cognition
Doctorate University of Aberdeen, Aberdeen, Scotland, UK, 2008 - 2011, PhD, Psychology, Industrial/Organizational Psychology
Post Doctoral Fellowship National Center for Human Factors in Healthcare, Washington, DC, 2014
Fellowship Human Factors and Ergonomics Society Science Policy Fellowship, 2019

B. Professional Experience:

Senior Director	The Center for Simulation, Research and Patient Safety, Carilion Clinic	2018-present
Research Associate Professor	Fralin Biomedical Research Institute, Roanoke, VA	2015-present
Associate Professor	Department of Basic Science Education, Virginia Tech Carilion School of Medicine, Roanoke, VA	2015- present
Research Associate Professor	Virginia Tech, Department of Psychology, Blacksburg, VA	2015-present
Director of Human Factors Research	Carilion Clinic, Roanoke, VA	2015-2018
Director of Education and Academic Affairs	National Center for Human Factors in Healthcare, MedStar Health, Washington, DC	2013 – 2015

Assistant Professor	Emergency Medicine, Georgetown University School of Medicine, Washington, DC	2014 – 2015
Research Scientist	National Center for Human Factors Engineering in Healthcare, MedStar Health, Washington, DC	2011 – 2015
Faculty Affiliate	George Mason University, Fairfax, VA	2012 – 2015
Data Analyst (ad-hoc)	World Health Organization, Aberdeen, Scotland, UK	2010 – 2011
Human Factors Analyst	Mayo Clinic, Rochester, MN	2006 -2008
Research Assistant	George Mason University ARCH Lab, Fairfax VA	2004 -2006
Research Assistant	Wright-Patterson Air Force Base, Human Performance Lab Dayton, OH	2002 -2004
Research Assistant	Wittenberg University, Learning Memory and Cognition Lab, Springfield, OH	2002-2004

Professional Certifications and Continuing Education

Biostatistics and Epidemiology Summer Intensive, MedStar Health Research Institute, Washington, DC	2013
MedStar Teaching Scholars, MedStar Health Research Institute, Washington DC- MERC Certification	2012-2013
Cognitive Task Analysis- Webinar, University of Aberdeen, Scotland UK	2011
TeamSTEPPS- Master Trainer training, Mayo Clinic, Minneapolis, MN	2008
Simulation as a Teaching Tool: Instructor Training. Institute for Medical Simulation- Harvard University, Boston, MA	2007
Crucial Conversations- Mayo Clinic, Rochester, MN	2007

RESEARCH AND SCHOLARLY ACTIVITIES

A. Publications (students are *italicized*):

Safford SD., Lau N., **Henrickson Parker, S.**, Hartman –Kenzler, J. (accepted). Skill Assessment and Anticipation of Adverse Events in Attending and Resident Surgeons. *Journal of Surgical Research*. 2021.

Keller S., Yule S., Smink S., Zagarese V., Safford S.D., **Henrickson Parker S.** (2020). Episodes of strain experienced in the operating room: impact of the type of surgery, the profession and the phase of the operation, *BMC Surgery*, 20(318). doi.org/10.1186/s12893-020-00937-y

Edwards, III G.F., Mierisch, C., Mutcheson, B., Horn, K., Parker SH. (in press). A Review of Performance Assessment Tools for Rescuer Response in Opioid Overdose Simulations and Training Programs. *Preventive Medicine Reports*. 2020.

Keller, S., **Henrickson, Parker, S.** (accepted). *Predictors and triggers of incivility within healthcare teams: A systematic review of the literature*. *BMJ*. 2020.

Kennedy-Metz, L., **Henrickson, Parker, S.** (accepted). *Results of exploratory investigation into adherence to auditory coping instructions during an acutely stressful task*. *Stress*. 2019. doi.org/10.1080/10253890.2019.1660317

Keller S, Yule S, Zagarese V, **Henrickson Parker S.** (2020). Predictors and triggers of incivility within healthcare teams: a systematic review of the literature. *BMJ Open*, 10: e035471. doi: 10.1136/bmjopen-2019-035471

Henrickson Parker S., Lei X., Fitzgibbons S., Metzger, T., Safford S., Kaplan S. (accepted). *The impact of surgical team familiarity on length of procedure and patient length of stay: Inconsistent relationships across procedures, team members, and sites*. *World Journal of Surgery*. 2020.

Kennedy-Metz, L., Weiss, P., **Henrickson Parker S.** (2020) *Results of exploratory investigation into adherence to auditory coping instructions during an acutely stressful task*, *Stress*, 23:2, 144-152, DOI: [10.1080/10253890.2019.1660317](https://doi.org/10.1080/10253890.2019.1660317)

Fichtel E, Lau N, Park J, **Henrickson Parker S.**, Ponnala S, Fitzgibbons S, Safford SD. (2019). *Eye tracking in surgical education: gaze-based dynamic area of interest can discriminate adverse events and expertise*. *Surg Endosc*. 33(7):2249-2256. <https://doi.org/10.1007/s00464-018-6513-5>

McLeod PL, Cunningham QW, DiazGranados D, Dodoiu G, Kaplan S, Keyton J, Larson N, LeNoble C, Marsch SU, O'Neill TA, **Henrickson Parker S.**, Semmer NK, Shuffler M, Su L, Tschan F, Waller M, Wang Y. (December 2019). *Hacking teamwork in health care: Addressing adverse effects of ad hoc team composition in critical care medicine*. *Health Care Manage Rev*. <https://doi.org/10.1097/HMR.0000000000000265>

Kliger A., **Henrickson Parker S.** ASN and CDC's "Nephrologists Transforming Dialysis Safety" Team Up with Human Factors Engineers to Target Zero Infections in Hemodialysis. *ASN Kidney News Online*. 11(4). 2019.

Park J, Ponnala S, Fichtel E, Tehranchi K, Fitzgibbons S, **Henrickson Parker S.**, Lau N, Safford SD. (2019). *Improving the Intraoperative Educational Experience: Understanding the Role of Confidence in the Resident-Attending Relationship*. *J Surg Educ*. 2019 Sep - Oct;76(5):1187-1199. <https://doi.org/10.1016/j.jsurg.2019.02.012>

Fong A, Komolafe T, Franklin E, **Henrickson Parker S.** (2019). *Using medication administration and double-check data to infer social network influence in intensive care units*. *Social Network Analysis and Mining*. 9(26). <https://doi.org/10.1007/s13278-019-0571-0>

Kennedy-Metz L., Weiss P., **Henrickson Parker S.** (2019). Adherence to auditory coping instructions

during an acutely stressful task affects stress and task performance for healthcare providers. *Stress*. DOI: [10.1080/10253890.2019.1660317](https://doi.org/10.1080/10253890.2019.1660317)

Henrickson Parker S. Schmutz J., Manser T. Training Needs for Adaptive Coordination: Utilizing Task Analysis to Identify Coordination Requirements in Three Different Clinical Settings. *Group and Organizational Management*, 43(3), 504-527. 2018. <https://doi.org/10.1177/1059601118768022>

Fichtel E., Lau N., Park J., **Henrickson Parker S.** H., Ponnala, S., Fitzgibbons S. C., Safford S. (In press). Eye tracking in surgical education: Gaze-based dynamic area of interest can discriminate adverse events and expertise. *Surgical Endoscopy*. 33(7) 2249-2256. 2018. <https://doi.org/10.1007/s00464-018-6513-5>

Kennedy L., Henrickson Parker, S. (2019). Biofeedback as an Acute Stress Management Tool for Professionals: A Systematic Review, Cognition, Technology and Work 21(2) 161-190.

Kennedy L., Henrickson Parker S. (2018). Timing of coping instruction presentation for real-time acute stress management: Potential implications for improved surgical performance, Journal of Healthcare Informatics Research, 2 (1-2), 111-131. DOI: 10.1109/ICHI.2016.101

Frazier S.E., Henrickson Parker S. (2018). Measurement of physiological responses to acute stress in multiple occupations: A systematic review and implications for front line healthcare providers. Translational Behavioral Medicine. 9(1) 158-166. doi.org/10.1093/tbm/iby019

Day T.E. **Henrickson Parker S.**, Lederman V., McKetta D., Spraycar A. (2017). Evaluating new skill sets for performance improvement: Human factors as a case study. *Health Care Manager*. 36 (2):123-128. doi: 10.1097/HCM.0000000000000157

Gerrish AW, Strayer T, Glick R, Safford S, **Henrickson, Parker S.** Leadership in Action: Identifying patterns of leadership in a mass casualty simulation. (2017). *J Am Coll Surg*. 225 (4): S121. doi.org/10.1016/j.jamcollsurg.2017.07.267

Park J., Henrickson Parker S. & Safford S. (2017). Surgical trainees' confidence in the operating room improves over time with a corresponding increase in responsibility. American Surgeon. 83(11). E421-E423.

Flach J., Feufel M., Reynolds, P., **Henrickson Parker S.**, Kellogg K. (2017). *The Dynamics of Muddling Through, Applied Ergonomics. 63. 133-141. doi.org/10.1016/j.apergo.2017.03.017*

Fong A., Clark L., Cheng T., Franklin E., Fernandez N., Ratwani R., **Henrickson Parker S.** (2017) Identifying influential individuals on intensive care units: Using cluster analysis to explore culture, *Journal of Nursing Management. 25(5), 384-391. doi.org/10.1111/jonm.12476*

Fernandez R., Shah S., Rosenman E.D., Kozlowski S. W., **Henrickson Parker S.**, Grand A. J. 2017. Developing team cognition: A role for simulation. *Simulation in Healthcare, 12(2), 96-103. 2017. doi: 10.1097/SIH.0000000000000200*

Webman R., Fritzeen J., Yang J., Ye G., Mullan P. C., Qureshi F. G., **Henrickson Parker S.**, Sarcevic, A., Marsic I. & Burd R. S. (2016). Classification and Team Response to Non-Routine events occurring during pediatric Trauma Resuscitation. *Journal of Trauma and Acute Care Surgery, 81(4), 666-673. doi: 10.1097/TA.0000000000001196*

Fernandez R., Meschke S. Ehrmantraut R, Meschke JS, Simcox NJ, Wolz SA, **Henrickson Parker S.** (2016). Proactive risk assessment for Ebola infected patients: A systematic approach to identify and minimize risk for healthcare personnel. *Infection Control and Hospital Epidemiology, 37(7), 867-871. doi: 10.1017/ice.2016.78*

Yule S., **Henrickson Parker S.**, Wilkinson J., McKinley A., MacDonald J., Neill A., McAdam T. (2015). Coaching non-technical skills improves surgical residents' performance in a simulated operating room. *Journal of Surgical Education*, 72(6), 1124-1130. doi.org/10.1016/j.jsurg.2015.06.012

Hu Y., **Henrickson Parker, S.**, Lipsitz S. R., Arriaga A. F., Peyre S. E., Corso K. A., ... Greenberg C. C. (2015). Surgeons' Leadership Styles and Team Behavior in the Operating Room. *Journal of the American College of Surgeons*. <http://doi.org/10.1016/j.jamcollsurg.2015.09.013>

Henrickson Parker S. (2015). Human Factors: A Human Factors Science: Brief History and Applications to Healthcare. *Current Problems in Pediatric and Adolescent Health Care*, 45(12), 390-394. doi.org/10.1016/j.cppeds.2015.10.002

Henrickson Parker S., Flin R., McKinley A., & Yule S. (2014). Factors influencing surgeons' intraoperative leadership: video analysis of unanticipated events in the operating room. *World Journal of Surgery*, 38(1), 4–10. doi.org/10.1007/s00268-013-2241-0

Henrickson Parker S., Flin R., McKinley A., & Yule S. (2013). The Surgeons' Leadership Inventory (SLI): A taxonomy and rating system for surgeons' intraoperative leadership skills. *American Journal of Surgery*, 205(6), 745–751. doi.org/10.1016/j.amjsurg.2012.02.020

Schiebel N., **Henrickson Parker S.**, Bessette R., Cleveland E., Neeley J. P., Warfield K., Naessens J. (2013). Honouring patient's resuscitation wishes: a multiphased effort to improve identification and documentation. *BMJ Quality & Safety*, 22, 85–92. doi.org/10.1136/bmjqs-2012-000928

Henrickson Parker S., Yule S., Flin R., & McKinley A. (2012). Surgeons' Leadership in the Operating Room: An Observational Study. *Am J Surg*, 204(3), 347–354. doi.org/10.1016/j.amjsurg.2011.03.009

Henrickson Parker S., Yule S., Flin R., McKinley A. (2011). Towards a model of surgeons' leadership in the operating room. *BMJ- Quality and Safety* 20(7), 570-579. doi.org/10.1136/bmjqs.2010.040295

Brown M.L., **Henrickson Parker S.**, Quinonez L.G., Zhou L., Sundt T.M. (2011). Can The Impact of Change of Surgical Teams in Cardiovascular Surgery be measured by Operative Mortality or Morbidity? A Propensity Adjusted Cohort Comparison. *Annals of Surgery*, 253(2), 385-392, doi: 10.1097/SLA.0b013e3182061c69

Wadhera, R., **Henrickson Parker S.**, Burkhart H., Greason K., Neal J., Levenick K., ... Sundt 3rd, T. M. (2010). Is the "sterile cockpit" concept applicable to cardiovascular surgery critical intervals or critical events? The impact of protocol-driven communication during cardiopulmonary bypass. *Journal of Thoracic and Cardiovascular Surgery*, 139(2), 312–319. doi.org/10.1016/j.jtcvs.2009.10.048

Burkhart H., Riley J.; **Henrickson Parker S.***; Glenn G.; Lynch J., Arnold, J., Dearani J., Schaff H., Sundt T. (2010). The successful application of simulation-based training in thoracic surgery residency. *Journal of Thoracic and Cardiovascular Surgery*, 139(3) 707-712. doi.org/10.1016/j.jtcvs.2009.10.029 *epub name is misspelled 'Hendrickson'

Wiegmann D. A., Eggman A. A., Elbardissi A. W., **Henrickson Parker S.**, & Sundt 3rd, T. M. (2010). Improving cardiac surgical care: a work systems approach. *Applied Ergonomics*, 41(5), 701–712. [http://doi.org/S0003-6870\(09\)00168-9](http://doi.org/S0003-6870(09)00168-9) [pii]10.1016/j.apergo.2009.12.008

Henrickson Parker S. Laviana A., Wadhera R., Wiegmann D., Sundt TM. (2010) Development and Evaluation of an Observational Tool for Assessing Surgical Flow Disruptions and Their Impact on Surgical Performance. *World Journal of Surgery* 34(2), 353-361.

Henrickson Parker S., Wadhera R., Elbardissi A. W., Wiegmann D. A., & Sundt 3rd, T. M. (2009). Development and pilot evaluation of a preoperative briefing protocol for cardiovascular surgery. *Journal of the American College of Surgeons*, 208(6), 1115–1123. doi.org/10.1016/j.jamcollsurg.2009.01.037

Arnold J., Johnson, L., Tucker S., Malec, J., **Henrickson Parker S.**, & Dunn W. (2009). Evaluation tools in simulation learning: Performance and self-efficacy in emergency response. *Clinical Simulation in Nursing*, 5, e35–e43. doi.org/10.1016/j.ecns.2008.10.003

Wiegmann D., Suther T., Neal J., **Henrickson, Parker, S.**, Sundt T. (2009). A Human Factors Analysis of Cardiopulmonary Bypass Machines and Associated Components and Procedures. *Journal of Extracorporeal Technology*, 41(2), 57-64.

Henrickson Parker S., Schnell J., White, A. (2009). Basics of human factors and patient safety. *OR Nurse*. 3, 6-9, DOI: 10.1097/01.ORN.0000351601.40998.68

ElBardissi A., Wiegmann, D., **Henrickson Parker S.**, Wadhera R., Sundt T. (2008). Identifying methods to improve heart surgery: an operative approach and strategy for implementation on an organizational level. *European Journal of Cardio-Thoracic Surgery*, 34(5), 1027 – 1033. doi.org/10.1016/j.ejcts.2008.07.007

Reviews or Editorials in Refereed Journals

Sundt, T., **Henrickson Parker S.**, Cima R. (2008). Invited commentary: Approaching process improvement from a human factors perspective: seeking leverage from a systems approach, *Surgery* 144: 96-98. doi.org/10.1016/j.surg.2008.04.002

Books or Chapters in books, and publications in other journals

Wolfe H. A.; **Henrickson Parker, S.**, Sutton R.M. (2019) Improving patient outcomes after resuscitation with systematic debriefing. *Comprehensive Healthcare Simulation – Improving Healthcare Systems*. Eds. E. Deutsch, H. Gurnaney, and S. Perry

Wolf L., **Henrickson Parker, S.**, Gleason J. (2019). Human Factors Engineering. *Patient Safety and Quality Improvement in Healthcare*. Eds. R. Shah & S. Godambe.

McIlhenny C., **Henrickson Parker S.**, & Youngson G. (2016). Leadership. In R. Flin G. Youngson & S. Yule (Eds.), *Enhancing Surgical Performance: A Primer in Non-Technical Skills* (pp. 123–136). Boca Raton, FL: CRC Press. *Won CRC Press best medical book award 2016.

Henrickson Parker S., & Perry S. J. (2015). Matching cognitive aids with the “real work” of healthcare in support of surgical microsystem teamwork. In A. Bisantz, C. Burns, & R. J. Fairbanks (Eds.), *Cognitive Systems Engineering in Health Care* (pp. 153–175). Boca Raton, FL: CRC Press.

Xiao Y., **Henrickson Parker S.**, & Manser T. (2013). Teamwork and Collaboration. *Reviews of Human Factors and Ergonomics*, 8(1), 55–102. <http://doi.org/10.1177/1557234X13495181>

Henrickson Parker S., Krevat S., Fairbanks T. Handbook for Best Practices: Root Cause Analysis and Conducting an Effective Event Review (2014). MedStar Health.

Proceedings

1. Al-Balla A., Henrickson Parker S., Abahuje, E., Goldberg S., Miller-Foster C., Pozner C., Yule S., Dias RD. Development of an Observation-Based Rating Tool to Assess Trauma Team Leadership Skills. *Trauma Association of Canada (TAC)*. 2020.
2. Hartman-Kenzler J, Hamill, M., Freeman, D., **Henrickson, Parker S.**, Trevilian T., and Safford SD. Differences in pediatric and adult methods of suicide and self-injury at a rural level 1 pediatric trauma center. *Pediatric Trauma Society*, San Diego, CA. November 2019.

3. Martin, T., **Henrickson Parker, S.**, Knapp, B. Smart Clothing in Healthcare: Opportunities for Providing Better Situational Awareness for Clinicians. (Submission) to the *Smart Clothing for Healthcare Workshop*. 2019.
4. Gracanin, R., D., Knapp, B., Martin, T.L., **Henrickson Parker S.** *Smart Virtual Care Centers in the Context of Performance and Privacy*. 15th International Conference on Telecommunications (ConTEL). Graz, Austria. July 2019.
5. **Henrickson, Parker S.** *Unpacking the Influence of Intragroup Factors in Healthcare Teams*. Society for Industrial and Organizational Psychology Annual Meeting. Washington, DC. April 2019.
6. Khunlertkit, N.A., Rivera, J.A., Ponnala, S., Keeratisarun, A., Yin, S., Wolf, L.D., **Henrickson Parker S.** *Human Factors Practitioners' Contributions to the Joint Commission International Patient Safety Goals (IPSG)*. International Symposium on Human Factors and Ergonomics in Health Care. Chicago, IL. March 26, 2019.
7. Rayo, M., Won, J., **Henrickson Parker S.**, Weinger, M., Fairbanks, R. *Building Human Factors-Capabilities within a Hospital System: Lessons Learned*. International Symposium on Human Factors and Ergonomics in Health Care. Chicago, IL. March 24, 2019.
8. Whicker, S., Rudd, M., **Henrickson Parker S.** *Fostering the Development of Health Professions Education Scholars through Collaborative Learning & Practice*. Society for Academic Continuing Medical Education. Charleston, South Carolina, February 26-March 1, 2019.
9. Musick, D., **Henrickson Parker S.** *Integrating a Longitudinal Systems and Safety Science Thread into a Four Year Medical School Curriculum*. IAMSE Meeting, Roanoke, Virginia, June 8-11, 2019
10. Holla, S., **Henrickson Parker S.**, Lau, N. & Safford, S.D. *Near real time prediction of eye-gaze using deep neural network in endoscopic surgeries*. The 14th Annual Academic Surgical Congress,. Hilton Americas-Houston, Houston, Texas, USA. February 5-7, 2019
11. Mallonee, R., Tegge, A., **Henrickson Parker, S.**, Safford, S. *Faster cholecotomy time associated with greater team familiarity: mixed model analysis of 609 cases*. The 14th Annual Academic Surgical Congress. Hilton Americas-Houston, Houston, Texas, USA. February 5-7, 2019
12. **Henrickson Parker, S.** & Foti, R. *Unpacking the influence of intra-group factors in healthcare teams*. Society for Industrial and Organizational Psychology, Gaylord International Hotel, Washington, DC, USA. April 4-6, 2019
13. Fichtel, E., Park, J. **Henrickson Parker S.**, Lau, N. & Safford, S.D. (2018). *Eye-tracking in educational assessment: an automated procedure to define dynamic areas of interest*. The 13th Annual Academic Surgical Congress,. Hyatt Regency Jacksonville Riverfront in Jacksonville, FL, USA. January 30- February 1, 2018.
14. Kennedy, L., Lau, N., Pappada, S., & **Henrickson Parker S.** *Selecting, evaluating, and translating psychophysiological measures into clinical settings: From lab to practice*. Human Factors and Ergonomics Society Healthcare Symposium. Boston, MA. March 26-28 2018.
15. Jesso, M. **Henrickson Parker, S.** *Usability design for multiple clinical end users: An evaluation of medication labels*. Human Factors and Ergonomics Society Healthcare Symposium. Boston, MA. March 26-28, 2018.
16. **Henrickson Parker, S.** & McCusker, M. *Research Methods for Healthcare Teams: Technology, Opportunities and Lessons Learned*. Society for Industrial/Organizational Psychology. Chicago, IL. April 19-20, 2018.

17. Center for Simulation Research and Patient Safety. *In Situ Simulation experience- from Field to discharge, a simulated patient journey*. Virginia State Simulation Alliance. Roanoke, VA. August 30-31, 2018.
18. Rayo, M. (chair) Panelist. *Spreading the word: Improving outcomes with human factors engineering*. Human Factors and Ergonomics Society 62nd annual meeting. October 1-5, 2018. Philadelphia, PA.
19. L. Kennedy-Metz, **Henrickson Parker S.** *Effect of biofeedback on perceptions of stress, physiological markers of stress, and task performance among healthcare practitioners*. 12th International Meeting on Behavioural Sciences Applied to Surgery and Acute Care Settings. Munich, Germany. October 2018.
20. S. Keller, S.J. Yule, S. J., **Henrickson Parker S.** *Triggers of incivilities in acute care teams: a systematic review*. 12th International Meeting on Behavioural Sciences Applied to Surgery and Acute Care Settings. Munich, Germany. October 2018.
21. **Henrickson Parker S.** *Integrating Usability into the Procurement Process: Mixed Results and Future Directions*. HFES. Philadelphia, PA. September 2018.
22. **Henrickson Parker S.** *Debriefing*. VASSA Conference. Roanoke, VA. August 2018.
23. **Henrickson Parker S.** *The Current State of Teamwork Science: How Teamwork Research in Real and Simulated Environments Can Advance the Safety Agenda*. AATS Surgical Patient Safety Course. Boston, MA. June 2018.
24. **Henrickson Parker S.** *Panel: Group Workshop #1 Behavioral Science*. AATS Surgical Patient Safety Course. Boston, MA. June 2018.
25. **Henrickson Parker S.** *Accident Theory: Why Do Bad Things Happen to Good People*. AATS Surgical Patient Safety Course. Boston, MA. June 2018
26. Gerrish AW, Glick R, Safford S, Strayer T, **Henrickson, Parker S.** *Leadership in Action: Identifying patterns of leadership in a mass casualty simulation*. American College of Surgeons Clinical Congress, San Diego, CA, October 2017.
27. McCusker, M., K.B., Perry, S., Grand, J., **Henrickson Parker S.**, Fernandez, R., Pappada, S. *Research Methods for Healthcare Teams: Technology, Opportunities, and Lessons Learned*. Society for Industrial and Organizational Psychology. Chicago, Illinois. April 2018.
28. E. Fichtel, J. Park, **Henrickson Parker S.**, N. Lau, S.D. Safford. *Eye tracking in Educational Assessment: An automated Procedure to Define Dynamic Areas of Interest*. 13th Annual Academic Surgical congress. Jacksonville, FL. January 2018.
29. S. Fitzgibbons, S, Kaplan, X.Lei, S. Safford, **Henrickson, Parker S.** *Operating Room Teams: Does Familiarity Make a Difference?* 13th Annual Academic Surgical Congress. Jacksonville, FL. January 2018.
30. S. Kaplan, T. Metzger, X. Lei, S. Safford, S., Fitzgibbons, R. Muthakattil, **Henrickson Parker S.** *Team Familiarity in the Operating room*. InGroup. July 2017.
31. Diaz Granos, D., Su, L., Waller, M., **Henrickson Parker S.** Kaplan, S., Dodoiu, G. *Hackmanathon, Mitigating Adverse Effects of Ad Hoc Team Formation and composition in critical care medicine*. InGroup. July 2017.
32. **Henrickson Parker S.** *Teaching HF/E to Future Health-Care Professionals: Opportunities for Integrating Human Factors, Quality, and Safety Into Medical Education*. Human Factors and Ergonomics in Healthcare Conference, New Orleans, March 2017.

33. Kennedy, L., **Henrickson Parker S.**, *Making MATB-II medical: Pilot-testing results to determine a novel lab-based, stress-inducing task*, Human Factors and Ergonomics in Healthcare Conference, New Orleans, March 2017.
34. Park, J., **Henrickson Parker S.**, Safford, S. D. *Surgical trainees' confidence in the OR improves over time with a corresponding increase in responsibility*. Poster: 2017 Annual Meeting of the Southeastern Surgical Congress, Nashville, TN. 2017.
35. Park, J., Ponnala, S., **Henrickson Parker S.**, Lau, N., Safford, S. D. *Utilizing eye-tracking technology to understand the importance of confidence on education*. Poster: 9th annual Conference on Higher Education Pedagogy, Blacksburg, VA. 2017.
36. Frazier, S., **Henrickson Parker S.**, and Jennings, C. *Feasibility of Assessing Acute Stress in Bedside Nurses Using Wearable Body Metrics*, Carilion Clinic Nursing Research Conference, Roanoke, VA, 2016 poster presented by S. Frazier.
37. Frazier, S., **Henrickson Parker S.**, and Jennings, C. *Feasibility of Assessing Acute Stress in Bedside Nurses Using Wearable Body Metrics*, Virginia Nurses Association's Fall Conference, Richmond, VA, 2016 poster presented by S. Frazier, 1st place award in Research Category
38. Frazier, S., **Henrickson Parker S.**, and Jennings, C. *Feasibility of Assessing Acute Stress in Bedside Nurses Using Wearable Body Metric*, Carilion Clinic Week of the Nurse Conference, Roanoke, VA, 2016, poster presented by S. Frazier.
39. Kennedy, L., **Henrickson Parker S.**, Timing of coping instruction presentation during acute stress. Abstract for poster presentation. 2016. Translational Biology, Medicine, and Health Open House, Blacksburg, VA, November 2016.
40. Kennedy, L., **Henrickson Parker S.** *Timing of coping instruction presentation for real-time acute stress management: Long-term implications for improved surgical performance*. Conference proceedings of the International Workshop on Mining Wearable Data for Healthcare and IEEE International Conference on Healthcare Informatics, Chicago, Illinois, October 2016.
41. Xiao, Y., Hallbeck, S., Blocker, R.C., **Henrickson Parker S.** *Building High-Performance Surgical Teams: Theoretical and Practical Considerations for Team Consistency*, Human Factors and Ergonomics Society. Chicago, IL, October 30 2014
42. Ratwani, R., **Henrickson Parker S.**, Fairbanks, T. *The Challenges of Conducting Ethnographic Studies in Healthcare Settings*. Computer Human Interaction Workshop on HCI Fieldwork in Healthcare—Creating a Graduate Guidebook. Paris, France 2013.
43. Burd, R., **Henrickson Parker S.** *Using Video Review for Assessment and Improvement of Team Performance in a Dynamic Medical Domain*. Human Factors and Ergonomics Society Annual Meeting. 2012.
44. **Henrickson Parker S.** & Rosen, M. Developing methods to measure healthcare team performance in acute and chronic care settings, Accepted to Human Factors and Ergonomics Society Annual meeting. Boston, MA October 22-26, 2012.
45. Wears, R., **Henrickson Parker S.**, Cohen, M., Carroll, J., Perry, S., Manser, T. *A wealth of information creates a poverty of attention? Understanding information requirements for*

- communication at handovers*, Accepted to Human Factors and Ergonomics Society Annual meeting. Boston, MA October 22-26, 2012.
46. Xiao, Y., Probst, C.A., Russ, A., Carayon, P., Wolf, L., **Henrickson Parker S.** *Learning about healthcare: Preparing human factors professionals for a career in healthcare*, Accepted to Human Factors and Ergonomics Society Annual meeting. Boston, MA October 22-26, 2012.
 47. Lewis, R., V., **Henrickson Parker S.**, Stephens, R. J., Clark, L., Fairbanks, R. J. *Why aren't we achieving better results? A literature review of healthcare associated infection interventions*. Proceedings of the Human Factors and Ergonomics Society annual meeting. 2012.
 48. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. *Using videos to determine the effect of stage of operation and intraoperative events on surgeons' intraoperative leadership*, Accepted to Human Factors and Ergonomics Society Annual meeting. Boston, MA October 22-26, 2012
 49. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. *Development of a Taxonomy for Surgeons' Intraoperative Leadership*, Presented at: The 55th Annual Human Factors and Ergonomics Society Meeting, Las Vegas, NV. September 19-23, 2011. ****Winner of the Best Student Paper award****
 50. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. *A preliminary investigation of surgeons' leadership in the operating room*. Human Factors and Ergonomics Society Annual Meeting. 2010.
 51. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. *An observational study of surgeons' intraoperative leadership*. Presented at: The 54th Annual Human Factors and Ergonomics Society Meeting, San Francisco, CA. September 27-October 1, 2010.
 52. **Henrickson Parker S.**, Laviana, A., Wiegmann, D., Sundt, T.M. *Developing a Tool for Reliably Identifying Distractions and Interruptions During Surgery*. Presented at: The 53rd Annual Human Factors and Ergonomics Society Meeting, New York, NY, October 19-23, 2009.
 53. **Henrickson Parker S.**, Wadhera, R., Wiegmann, D., Sundt, T.M. *The Impact of Protocolized Communication During Cardiac Surgery*. Presented at: The 53rd Annual Human Factors and Ergonomics Society Meeting, New York, NY, October 19-23, 2009.
 54. Wadhera, R., **Henrickson, S.**, ElBardissi, D., Wiegmann, D., Sundt, T. *Implementing a Pre-Operative Briefing in Cardiovascular Surgery*. Presented at: The 3rd Annual Academic Surgical Congress, Huntington Beach, CA, February 13-15, 2008.
 55. **Henrickson, S.**, Wiegmann, D., Arnold, J. *Assessing the inter- and intra- rater reliability of a teamwork rating scale for health care*. Presented at: The 52nd Annual Human Factors and Ergonomics Society Meeting, New York, NY, September 22-26, 2008.
 56. Greenwood, P., **Henrickson, S.**, Parasuraman, R. *Visuospatial attention is distributed around a target with an inhibitory surround in older adults during visual search*. Poster Presented at: The 51st Annual Human Factors and Ergonomics Society Meeting, Baltimore, MD, October 1-5, 2007.
 57. **Henrickson, S.**, Wiegmann, D., Suther, T., Sundt, T. *Designing a preoperative briefing for cardiovascular surgical operating rooms*. Presented at: The 51st Annual Human Factors and Ergonomics Society Meeting, Baltimore, MD, October 1-5, 2007.

Conference posters

1. *Hartman-Kenzler J, Hamill M, Freeman D, **Henrickson Parker S.**, Trevilian T, Safford SD. Differences in pediatric and adult methods of suicide and self-injury at a rural level 1 pediatric*

trauma center. [Abstract] presented at Pediatric Trauma Society.; November 2019, San Diego, CA.

2. *Hartman-Kenzler J, Hamill M, Freeman D, **Henrickson Parker S.**, Trevilian T, Safford SD.* Differences in pediatric and adult methods of suicide and self-injury at a rural level 1 pediatric trauma center. [Poster] presented at Pediatric Trauma Society. November 2019, San Diego, CA.
3. *Keller, S., Zagarese, V., Safford, S., & **Henrickson Parker S.*** Experienced and expressed tensions in the operating room: Are all team members on the same emotional page? 14th annual INGRoup Conference, Lisbon, Portugal. July 18-20, 2019. *Awarded best poster
4. *Gracanin RD, Knapp B, TL Martin, **Henrickson Parker S.***, Smart Virtual Care Centers in the Context of Performance and Privacy. [Poster] presented at International Conference on Telecommunications (ConTEL). July 2019, Graz, Austria.
5. *Musick D, **Henrickson Parker S.***, Integrating a Longitudinal Systems and Safety Science Thread into a Four Year Medical School Curriculum. [Poster] presented at IAMSE Meeting. June 2019, Roanoke, VA.
6. *Clark, J., Gleason, J., **Henrickson Parker S.**, Wolf, L.* RCA2 and Human Factors Science to Increase Strength of Action Items Following Serious Patient Safety Events. National Quality Forum Annual Conference, 2019. *Awarded Organizational Efficiencies and design abstract award
7. *Kennedy, L., **Henrickson Parker S.*** Exploration of enhanced healthcare provider performance using sensor technology and physiologically-driven biofeedback. Abstract for poster presentation. American Association for Thoracic Surgery: Surgical Patient Safety Course, Boston, MA, June 2018.
8. *Kennedy, L., Pappada, S., Lau, N., Papadimos, T., **Henrickson Parker S.*** Applications of psychophysiological measures in clinical settings: Studies in simulation, surgery, and the lab” Abstract for poster presentation. International Symposium on Human Factors and Ergonomics in Health Care, Boston, MA, March 2018.
9. *Kennedy, L., **Henrickson Parker S.*** Biofeedback components evaluated in the lab setting. Abstract for poster presentation. 2017. Behavioural Science in Surgery and Acute Care Settings BSAS Annual Conference, Zurich, Switzerland, October 2017.
10. *Kennedy, L., **Henrickson Parker S.*** Timing of coping instruction presentation during acute stress. Abstract for poster presentation. 2017. Association for Applied Psychophysiology and Biofeedback Annual Conference, Chicago, IL, March 2017.
1. *Kennedy, L., **Henrickson Parker S.*** Timing of coping instruction presentation during acute stress. *Abstract for poster presentation. 2016. Translational Biology, Medicine, and Health Open House, Blacksburg, VA, November 2016.*
2. *Kennedy, L., **Henrickson Parker S.*** *Specifying parameters for real-time cognitive feedback during acute stress.* Poster session presented at Carilion Clinic/Virginia Tech Carilion School of Medicine/Jefferson College of Health Sciences Research Day, Roanoke, VA. April, 2016.
3. *Kennedy, L., **Henrickson Parker S.*** *Specifying parameters for real-time cognitive feedback during acute stress.* Poster session presented at International Symposium on Human Factors and Ergonomics in Health Care: Shaping the Future, San Diego, CA. April, 2016.
4. *Kennedy, L., **Henrickson Parker S.*** *Specifying parameters for real-time cognitive feedback during acute stress.* Poster session presented at Global Brain Health and Performance Summit, Columbus, OH. May, 2016.

5. **Henrickson Parker S.** Fernandez, R., Su, L., Waller, M., Patterson, M. *Leadership and decision making in adaptive action teams: Theory, research and practice*. InGroup Annual Meeting, Pittsburgh, PA. July 25, 2015.
6. **Henrickson Parker S.** *Patterns of Excellent Team Coordination in Trauma Resuscitation*. Human Factors and Ergonomics Society Healthcare Symposium, Baltimore, MD. April 27, 2015.
7. **Henrickson Parker S.** (2014). *Team coordination in healthcare*. Expert Panel. Society for Simulation in Healthcare, Orlando, FL. January 27, 2014.
8. **Henrickson Parker S.** (2014). *Surgeons' Intraoperative Leadership*. Expert Panel. Society for Simulation in Healthcare, Orlando, FL. January 29, 2014.
9. Siddqui, I., Izadpanah, K., **Henrickson Parker S.** (2013). *Team coordination tool used to identify and define Nonroutine Events (NREs) during trauma resuscitations*. MedStar Health Research Institute, Student Research Day. July 29, 2013.
10. Izadpanah, K., Siddqui, I., **Henrickson Parker S.** (2013). *Understanding non-routine events in trauma resuscitation*. MedStar Health Research Institute, Student Research Day. July 29, 2013.
11. **Henrickson Parker S.** (2013). *Teamwork and handoffs in trauma care*. Expert Panel. Human Factors and Ergonomics Society. San Diego, CA. October 2, 2013.
12. Weaver, M. **Henrickson Parker S.** (2013) *Research Review*, University of Tennessee.
13. Hu, Y., **Henrickson Parker S.**, Arriaga, A.F., Peyre, S.E., Corso, K.A., Roth, E.M., Yule, S.J., Greenberg, C.C. Follow the leader? The impact of leadership style on team performance in the OR, Accepted to the Academic Surgical Congress. New Orleans, LA February 5-7, 2013.
14. Lewis, V., Stephens, R., Clark, L., **Henrickson Parker S.**, Fairbanks, R.J. *Why Don't We See Better Results? A Sociotechnical Systems Perspective on the State of Healthcare Associated Infection Interventions*, Accepted to Human Factors and Ergonomics Society Annual meeting. Boston, MA October 22-26, 2012.
15. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. *The Surgeons' Leadership Inventory (SLI): Development of a behavioral marker tool to measure intraoperative leadership*. Poster presented at: National Patient Safety Foundation 14th Annual Patient Safety Congress. Washington, DC. May 23-25, 2012.
16. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. Evaluating the effect of stage of operation and intraoperative events on surgeons' intraoperative leadership: A video study. Poster presented at: MedStar Health Research Institute Research Day. Columbia, MD. March 5, 2012.
17. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. The Surgeons' Intraoperative Leadership Inventory: A reliable behavioral marker scale to evaluate surgeons' intraoperative leadership. Poster presented at: MedStar Health Research Institute Research Day. Columbia, MD. March 5, 2012.
18. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. Development of a Taxonomy for Surgeons' Intraoperative Leadership, Poster presented at: Behavioural Sciences Applied to Acute Care Medicine. Zurich, Switzerland. October 20-21, 2011.
19. Yule, S., Jones, H., **Henrickson Parker S.**, Driver, C., Neill, A., McAdam, T. Action video gaming is related to surgical performance: Time to focus on attention rather than dexterity in surgical training? Presented at: The 55th Annual Human Factors and Ergonomics Society Meeting, Las Vegas, NV. September 19-23, 2011.
20. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. Is Leadership Important in the Operating Room?. Poster presented at: Making health care safer: learning from social and organisational research, St Andrews, Scotland. June 27-28, 2011.
21. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. An observational study of surgeons' intraoperative leadership. Presented at: The European Association of Work and Organizational Psychology Conference. Maastricht, Netherlands, May 25-28, 2011.

22. **Henrickson Parker S.**, Yule, S., Flin, R., McKinley, A. An observation and focus group study of surgeons' leadership. Presented at: The 4th Annual Behavioural Sciences Applied to Surgery Meeting, Amsterdam, Netherlands, September 13-14, 2010.
23. **Henrickson Parker S.**, Yule, S.J., Flin, R. Captain of the Ship: Leadership in the Operating Theatre. Presented at: The 3rd Annual Behavioural Sciences Applied to Surgery Meeting, London, UK. September 15-16, 2009.
24. **Henrickson, S.**, Wadhera, R., Wiegmann, D., Sundt, T. Implementation and Evaluation of a preoperative briefing for cardiovascular surgical operating rooms. Presented at: The 52nd Annual Human Factors and Ergonomics Society Meeting, New York, NY, September 22-26, 2008.
25. **Henrickson, S.**, Wiegmann, D., Griffin, B. Human Factors Analysis and Classification System in Healthcare. Presented at: The Third Annual Safety Across High Consequence Industries Conference. St. Louis, MI, March 13-15, 2007.
26. Griffin, B., Wiegmann, D., Stanson, A., Logan, K., Halvorson, A., Suther, T., Brown, D., **Henrickson, S.** Human Factors Analysis and Classification System in Healthcare. Poster Presented at: Human Factors in Healthcare: Practical Applications to Improve Patient Safety. Rochester, MN, October 4-6, 2006.
27. Hernke, D., Stirn, S., Johnson, J., Schafer, B., Arnold, J., Brown, D., **Henrickson, S.** Team Resource Management: A Simulation Study. Poster Presented at: Human Factors in Healthcare: Practical Applications to Improve Patient Safety. Rochester, MN, October 4-6, 2006.
28. **Henrickson, S.**, Knott-Chavez, C., Greenwood, P., Parasuraman, R. Attention allocation changes in young and old. Poster Presented at: Society for Neuroscience, Washington, DC, Nov. 12-16, 2005

B. Research Funding:

Grants Pending

Current Active

Lau, N., Barnes, L., Safford, S., Parker, S.

iTHRIV

Role: Co-PI

\$53,034

Parker, S.

Human factors and systems analysis in outpatient dialysis

Centers for Disease Control, Nephrologists Transforming Dialysis Safety

Role: Site PI, Subcontract lead

\$173,619

Zagarese, V.

Leadership During Early Action Team Formation: The Influence of Shared Leadership Among Team Members During the Surgical Time-Out

Society for Industrial/Organizational Psychology

Small Grant Proposal

Role: Advisor (no salary- all grant goes to student)

\$5,060

Martin, T & Knapp, B.

Steelcase Design Iteration in healthcare settings

Steelcase

Role: Site PI (Roanoke/FBRI)

\$50,000

Horn, K., Mierisch, C. and Parker, S. (Carilion/VT School of Medicine). *“Development of a Model for the Simulation of and Participant Performance Evaluation in Opioid Overdose Response and Naloxone Administration”* Carilion Clinic-CTRHB Pilot and Feasibility Funding. July, 2019-2020.

Fernandez, R.

Translating Military Simulation-based Trauma Team Research into Outcomes: LEADing Effective Resuscitations (LEADER).”

Department of Defense

Role: Co-I

\$1.5 million

Henrickson Parker, S.

Human factors and systems analysis in outpatient dialysis

Centers for Disease Control, Nephrologists Transforming Dialysis Safety

Role: Site PI, Subcontract lead

\$173,619

Martin, T & Knapp, B.

Steelcase Design Iteration in healthcare settings

Steelcase

Role: Site PI

\$27,000

Center for Disease Control

Human Factors and Outpatient Dialyses

Contract

Role on Project: Site PI

Total project: \$137,181

CTSI- University of Florida

Development and Validation of a Novel Team Adaptation Measurement System

Role on Project: CO-I

Previous

Parker, S., Agency for Healthcare Research and Quality.

R03 Discourse analysis in trauma care

April 2016 – March 2018

Role on Project: PI

Total project: \$97719.

Agency for Healthcare Research and Quality

Identifying number: 1R18 HS23465-01
Sept 2014- Sept 2017
Role on Project: PI
Total project: \$749,728

Parker, S., Research Acceleration Program- Carilion Clinic
Surgical Team Familiarity
March 2016-March 2017
Role on Project: PI
Total Project: \$24751.

Parker, S., Research Acceleration Program-Carilion Clinic
Vulnerability Assessment Tool
March 2016-March 2017
Role on Project: PI
Total project: \$22880.

Parker, S., Preventing Violence against Emergency Department Healthcare Workers: A
prospective needs assessment to inform effective intervention
Washington State Department of Labor & Industry
2016-2018
Role on project: Co-PI
Total project: \$200,000

Robert Wood Johnson Foundation
Creating a social epidemic of safety
Identifying number: ID 72004
August 2014-August 2016
Role on Project: PI
Total project: \$330,565

Safety and Health Investments Project- Washington State
Jan 2015-Jan 2016
Role on project: Site Lead, PI: Rosemarie Fernandez, MD
Total Project: \$199,993, subcontract: \$20,714

Agency for Healthcare Research and Quality
Medical Liability Communication and Resolution
September 2013-March 2015
Role on Project: SubContract Lead
Total project: \$1,565,243, subcontract \$130,938

Agency for Healthcare Research and Quality
Identifying Number: 1 F32 HS021046-01
Understanding and Optimizing Coordination in High-Risk Healthcare Teams
July 2012-July 2015
Role on Project: PI
\$100,000 (estimated) over 3 years
Postdoctoral Overseas Scholarship Award

University of Fribourg
2014

Scottish Funding Council
Surgeons Intraoperative Leadership
October 2008-October 2011
Role on Project: PhD Studentship
Total Dollar Amount: \$79,026.96

Overseas Research Awards Scheme
Surgeons Intraoperative Leadership
October 2008-October 2011
Role on Project: PhD Research Award
Total Dollar Amount: \$39,175.73

C. Invited Lectures:

1. *Introduction to Simulation and Human Factors*. Goodwill Industries Webinar, August 4, 2020.
2. Panel: Medical Design Club. Webinar, Virginia Tech Carilion School of Medicine, July 28, 2020.
3. Human Factors and COVID-19: Designing 'new normal' for operations. Human Factors and COVID-19: Lessons Learned. HFES Webinar, May 2020.
4. International Women's Day Forum: Celebrating Diversity and Inclusion. AECOM, Roanoke VA. March 2020.
5. *Human Factors in Dialysis*, National Kidney Foundation, March 27, 2020
6. *Targeting Zero Infections: Human Factors Engineering and its Application to Dialysis*. American Society of Nephrology, Webinar, September 4, 2019.
7. *Teaching in a Simulated Environment*. Carilion Clinic. Teaching Excellence Academy for Collaborative Healthcare (TEACH), Health Professions Series, Roanoke VA. May 20, 2019.
8. *Big Hairy Audacious Talks*. Carilion Clinic Board Retreat. Hot Springs, VA. May 13, 2019.
9. *Keynote Lecture: State of teamwork and patient safety*. Center for Simulation Research and Patient Safety, Roanoke VA.
10. The Governance Institute Leadership Conference. *An Human Factors Approach to Care*. Phoenix Arizona. April 15, 2019.
11. *Human Performance in Healthcare*. Western Region Board of Directors/Medical Executive Annual Retreat. Pembroke, VA. October 29, 2018.
12. *Human Factors*. New River Valley Board, *Carilion Clinic*. Roanoke VA, October 29, 2018.

13. *Human Factors in Simulation in Medical Device Development*. Guest Lecture, Virginia Tech Mechanical Engineering Dept. Blacksburg, VA, October 25, 2018.
14. *Simulation and Patient Care*. Carilion Clinic Foundation Board of Directors. Roanoke VA, Sept 4 2018.
15. *Simulation Center*. Foundation Board of Directors, Carilion Clinic. Roanoke VA, September 2018.
16. *Human factors and Patient Safety, Carilion Collaboratives*. Roanoke VA, July 31, 2018.
17. *American Association of Thoracic Surgeons Surgical Patient Safety Course*. Boston June 29-31, 2018.
18. *The Current State of Teamwork Science: How Teamwork Research in Real and Simulated Environments Can Advance the Safety Agenda*. AATS Surgical Patient Safety Course. Boston, MA. June 2018.
19. *Panel: Group Workshop #1 Behavioral Science*. AATS Surgical Patient Safety Course. Boston, MA, June 2018.
20. *Accident Theory: Why Do Bad Things Happen to Good People*. AATS Surgical Patient Safety Course. Boston, MA, June 2018.
21. *Science of Teams*. Roanoke eXperience. Roanoke VA, May 4, 2018.
22. *We'll take good care of you: Applying Human factors and systems safety science to healthcare*. CHOP Grand Rounds. Philadelphia Pennsylvania, January 2018.
23. *Improving healthcare delivery: understanding individual and team contributions to system performance*. Ohio State University. Ohio, November 2017.
24. *We'll take good care of you: Applying human factors and systems safety science to healthcare*, Keynote. Chattanooga Tennessee, November 2017.
25. *Human Factors and Usability*. Workshop, VHHA; Virginia Healthcare and Hospital Association. October 2017.
26. *None of us is as smart as all of us: understanding and optimizing coordination in high risk healthcare teams*, Grand Rounds Carilion. Roanoke, VA, September 2017
27. *None of us is smart as all of us*. Webinar. Pennsylvania Patient Safety Organization HHA HIIN. Pennsylvania, June 2017.
28. *Not your mama's team training*. Systems Engineering Initiative in Patient Safety. Jacksonville FL, April 2017.
29. *Teamwork and System Safety Human Factors 10*, National Patient Safety Foundation. Orlando FL, May 2017.
30. *Optimizing Individual and team performance in complex healthcare environments*. Alpha Omega Alpha, Medical honors society. Roanoke, VA 2017.
31. *How human factors professionals understand error: Frameworks for understanding, models and classification systems*. American Association for Thoracic Surgery. Boston, MA, June 2016.
32. *Principles of high functioning teams and effective leadership behaviors*. American Association for Thoracic Surgery. Boston, MA, June 2016.
33. *Medical devices: Ergonomic device design and evaluation*. American Association for Thoracic Surgery. Boston, MA, June 2016.
34. *Research presentation*. Carilion Clinic Board of Governors. Roanoke, VA, November 2016.
35. *Danger Will Robinson! Identify High Risk PPE-Related Occupational Activities*. Society for Simulation in Healthcare. San Diego, CA, January, 17-20, 2016.
36. *Not your mama's team training*. Human Factors and Ergonomics Society Healthcare annual meeting. Washington DC. April 16, 2016.

37. *Defining and measuring advanced constructs in the wild*. Society of Industrial/ Organizational Psychologists Annual Meeting, Anaheim, CA. April 14, 2016.
38. *Application of Failure Mode Effects Analysis to Occupational Health, Safety and Health Investment Project*. Seattle, WA, April 2016.
39. *Team performance in anesthesia and perfusion*. Society for Cardiac Anesthesia, San Diego, CA, April 2016.
40. *Leadership and decision making in adaptive action teams: Theory, research and practice*. InGroup Annual Meeting. Pittsburgh, PA. July 25, 2015.
41. *What is human factors?* Pharmacy Carilion Clinic. Roanoke, VA, October 2015.
42. *Adaptive coordination in trauma*. Children's National Medical Center. Washington, DC June 2015.
43. *Team coordination and adaptation in trauma*. Georgetown University. Washington DC, June 2015.
44. *None of us is as smart as all of us: applying human factors and team science to healthcare*. Georgetown University. Washington DC, April 2015.
45. *Human Factors in Anesthesia*. Society for Cardiac Anesthesia. Washington DC, April 2015.
46. *RCA course; Human Factors 101. Workshop*, MedStar Health. Washington DC, March 2015.
47. *Why do patients make mistakes taking their asthma medication?* Georgetown University School of Medicine. Washington DC, November 2014.
48. *None of us is smart as all of us: Team coordination and its impact on education*. MedStar Health Innovation Day. Washington DC, October 2014.
49. *Understanding a systems safety approach: Impact on Education*. Grand Rounds, Mayo Clinic. Rochester, MN, Sept 2014.
50. *The Human Factor: Applying Safety Science in Healthcare*. Mayo Clinic. Rochester, MN, Sept 2014.
51. *The Human Factor*, Keynote. Yale Health System. New Haven, CT, May 2014.
52. *Human Factors and Safety Science Presentation*, the Rotary Association. Salem VA, April 2014.
53. *Team coordination and leadership in high-risk healthcare settings*. Virginia Hospital and Healthcare Association. Roanoke VA, April 2014.
54. *None of us is smart as all of us: Understanding team coordination in trauma resuscitation*. Psychology Research Day. University of Fribourg, March 2014.
55. *The Human Factor: Applying Safety Science in Healthcare*. Grand Rounds, MedStar Health, Georgetown University. CTSA, Nov 2013.
56. *Human Factors and Systems Safety*, Keynote, MCIC Patient Safety Symposium. Orlando, FL, Oct 2013.
57. *Non Technical Skills training in simulation*, Grand Rounds. MedStar Franklin Square Hospital. Baltimore, MD, Sept 2013.
58. *Teamwork and Leadership in the OR*, Ergonomics Society-Healthcare. Baltimore, MD, March 2013.
59. *Good Design, Bad Design*. Ergonomics Society-Healthcare. Baltimore, MD, March 2013.
60. *The Human Factor: Applying Safety Science in Healthcare*. MedStar Institute for Innovation's Annual Meeting. Washington, DC, Oct 2012.
61. *The Human Factor: Applying Safety Science in Healthcare*, Veterans Administration Grand Rounds. Veterans Hospital, Jan 2013.

62. *The Human Factor: Applying Safety Science in Healthcare*, Grand Rounds, National Rehab Hospital Safety Grand Rounds. MedStar National Rehab Center, Jun 2012.
63. *Captain of the Ship: Understanding Surgeons' Intraoperative Leadership*, Keynote, St Francis Hospital. Long Island, NY, Jun 2012.
64. *Applying Team Science in Healthcare*, George Mason University Brown Bag, March 2012.
65. *The Human Factor: Applying Safety Science in Healthcare*, Grand Rounds, MedStar Washington Hospital Center, Feb 2012.
66. *Applying Team Science in the ICU*. MedStar Washington Hospital Center, ICU, Jan 2012.
67. *Anatomy of a Leader*. MedStar Washington Hospital Center, ICU. Washington, DC, Feb 2012.
68. *Human Factors in Health Care: An International Perspective*, Patient Safety Congress. Birmingham, UK, May 2011.
69. *Establishing, Examining & Enhancing Non-Technical Skills in the Operating Theatre*. The Mayo Clinic Conference on Quality and Patient Safety. Rochester, MN, Sep 2009.
70. *The Science of What Makes Us Human: Applications for Cardiac Surgery*. The Mayo Clinic Conference on Quality and Patient Safety. Rochester MN, Sep 2009.
71. *Navigating the Challenges of Human Factors Implementation*. Applications for Cardiac Surgery Heart Hospital. London, UK, Sep 2009.
72. *Human Factors in the Cardiovascular Surgery Operating Room*, Practical Applications to Improve Patient Safety. St. Paul, MN, Oct 2007.
73. Presentation, 18th John W. Kirklin Visiting Professorship. Rochester, MN, Oct 2007.
74. *Session, Science of Human Factors: Translation from Research into Practice*. IRB Education Session, Mayo Clinic. Oct 2007.
75. *Session, TeamSTEPPS train-the-trainer*. Emergency Department: Mayo Clinic, 2008.
76. *Teaching Rounds, Setting ourselves up to succeed*. Surgical Services Teaching Rounds, Mayo Clinic. Feb 2008.
77. *Science of Human Factors: Translation from Research into Practice*. Quality Management Services Education Session, Mayo Clinic, Nov 2007

D. Editorships, Editorial Boards, and Reviewing Activities

Board member, Physician Magazine Editorial Advisory Council. 2020.

Reviewer, National Science Foundation's SBIR/STTR Phase 1 COVID-19 DCL (NSF 20-065). 2020

Editorial Board, JMIR Publications. 2019

Judge, INGroup Best Student Paper Award. July, 2019

Co-Director, *Health Professions Education Research Scholars (HERS)*. 2017-present

Co-Course Director, *Translational Biology, Medicine and Health (TBMH)*. 2018-present

Ad Hoc reviewer, *Implementation Science*, 2017

Committee Member, *Education Advisory Board for Georgetown University and MedStar Health*, 2015-2016

Task force member, *World Health Organization- Executive Leadership Curriculum Development*, 2014-present

Task force member, *American Board of Medical Specialties, Maintenance of Certification in Patient Safety Task Force for Thoracic Surgeons*, 2012-present

Founding advisory board member, *Surgical Outcomes Research Group*, Georgetown University, 2014-2015

IRB 3 Member, *Institutional Review Board, MedStar Health Research Institute*, 2013-2015

Event Reviewer, *Event Review Team, MedStar Health*, 2011-2015

Committee member, *QUEST committee*, MedStar Health, 2011-2013

Ad hoc Reviewer, *BMJ Quality and Safety*, 2011-present

Ad hoc Reviewer, *Annals of Emergency Medicine*, 2011-present

Ad hoc Reviewer, *Journal of the American College of Surgeons*, 2013-present

Ad hoc reviewer, *Journal of Evaluation in Clinical Practice*, 2014-present

Ad hoc Reviewer, *Annals of Surgery*, 2013-present

Reviewer, *Human Factors and Ergonomics Society Conference Proceedings*, 2010

Committee member, Safety Advisory Panel, Mayo Clinic, 2007-2008

Committee member, *Simulation Curriculum Development Committee*, Mayo Clinic, 2006-2008

Committee member, *Simulation Nursing Curriculum Development Committee*, Mayo Clinic, 2006-2008

TEACHING, MENTORING, AND ADVISING

Virginia Tech Department of Biomedical Engineering guest lectures- 2019

BMES 4134- Undergraduate Guest Lecture on Process Engineering in Healthcare

BMES 3144- Undergraduate Guest Lecture on Human Factors applications in device design

Virginia Tech Department of Architecture-2019

9/13 Industrial Design Town Hall- Health Design Research Collaborations

Virginia Tech Carilion School of Medicine guest lectures -2019

Transition to Residency Simulation-M4 class

Fundamentals and Foundation of Research, It is Research or Quality Improvement? Block I, M2

Interprofessional Teamwork and Roles for Collaborative Practice, Teamwork Concepts & TeamSTEPPS, Block I M1

TBMH

Independent Research Rotation

Spring and Fall 2019

TBMH

Health Implementation Science

5004

Fall 2019

National Patient Safety Foundation

E-Learning Module

“Introduction to Human Factors and Simulation”

2019

TBMH Independent Research Rotation

Independent Research

Fall 2018

Spring 2019

TMBH Implementation Science Focus

5004 Gateway Course

Fall 2018

VTCSOM Fall 2018

Experience and Assessment of Quality and Leadership in Interprofessional Health Care Teams, Team Leadership Lecture (LCT), Team Leadership 701, Block V, Year 2

VTCSOM Fall 2018

Interprofessional Teamwork and Roles for Collaborative Practice, Teamwork Concepts & TeamSTEPPS Lecture 601, Block I, Year 1

VTCSOM Fall 2018

Research, Is it Research or Quality Improvement Lecture (LCT), Is it Research or Quality Improvement 601, Block I, Year 1

Virginia Tech, Translational Biology Medicine and Health

HIS Course

Fall 2018

16 hours

Guest Lecture: Graduate Medical Education, health implementation science

Dissemination and implementation and systems science

November, 2017

Guest Lecture: Graduate Medical Education, patient safety

We'll take good care of you: understanding safety and quality in healthcare today: how did we get here and where are we going,
September, 2017

Virginia Tech Carilion Medical School, M1
Interprofessionalism lecture: Teamwork and Leadership
September 2017

Virginia Tech Carilion Medical School, lecture
Cognitive Bias
August, 2017

Translational biology medicine and health gateway course
What is Health Implementation Science?
2017

Graduate medical education, core curriculum
Patient Safety

OCPD, Lecture
Qualitative Methods
1 hour
August 2017

Virginia Tech Carilion Medical School, Lecture
Systems Engineering in Healthcare
1 hour
August 2017

TBMH Independent Research Rotation
Virginia Tech Carilion School of Medicine
3 hours
Number of students: 2
Fall and Spring 2016
8 hours
Number of students: 3
Fall 2016

Teaching Scholars

Medical Education Research Training, MedStar Health/Georgetown University

Course co-director

A systems approach to Root Cause Analysis

Course Director

2 day workshop for medical professionals

March 26-27, 2014

Medical School Courses

Systems Safety Engineering. Georgetown University

Course Director

6 hours/week for 4 weeks

Year Taught: 3

Number of Students: 30

Overall Evaluation Score: Evaluations available upon request

Guest Lecture: Human Factors and Systems Safety. Introduction to Healthcare Quality and Patient Safety – A Management Perspective;

Department of Health Policy and Management, Johns Hopkins University Bloomberg School of Public Health, 3RD Term, 2013-2014.

Years taught: 1

Number of Students: 30 MPH students

Guest Lecture: Leadership principles and concepts from the literature: Applications to Healthcare. Masters of Science in Patient Safety. University of Aberdeen, Oct 27, 2010.

Years taught: 1

Number of Students: 8, physicians, nurses

Guest Lecture: Human Factors and Team Communication During Cardiac Surgery. Simulation teaching and debriefing: Cardiac Fellows TDSA training. Mayo Clinic, Oct 4, 2008.

Years taught: 1

Number of students: 8, cardiac surgery fellows

Guest Lecture: Simulation teaching: Debriefed on non-technical skills. Mayo Clinic, Dec 2008.

Years taught: 1

Number of students: 10, physicians, nurses

Continuing Medical Education

NPSF human factors course

Root Cause Analysis

Workshop, North Carolina Hospital Association

Raleigh, NC

9/30/2014, 6.5 contact hours

National Patient Safety Foundation: Root Cause Analysis Workshop

Preconference Workshop, NPSF 2014

Orlando, FL

4/16/14, 4 contact hours

Human Factors and System Safety Engineering: A Primer for Healthcare Providers.

Preconference Workshop, HFES 2013 International Symposium on Human Factors and Ergonomics in Healthcare: Advancing the Cause

Baltimore, MD

3/10/13, 4 contact hours.

Concepts in Human Factors; Mayo Clinic

Director

1 hour/month for 2 years

Year Taught: 2006-2008

Number of Students/Fellows: Included physicians, nurses, respiratory therapists, quality improvement personnel, researchers; various

Overall Evaluation Score: n/a

Guest Lecture: Team Communication. TeamSTEPPS train-the-trainer. Emergency Department: Mayo Clinic, 2008.

Guest Lecture: Science of Human Factors: Translation from Research into Practice. IRB Education Session, Mayo Clinic. Oct 25, 2007.

Guest Lecture: Setting ourselves up to succeed. Surgical Services Teaching Rounds, Mayo Clinic: Feb 18, 2008.

Guest Lecture: Science of Human Factors: Translation from Research into Practice. Quality Management Services Education Session, Mayo Clinic: Nov 15, 2007.

Post Doctoral Trainee:

Sandra Keller, PhD Supported by the Swiss National Science Foundation University of Neuchatel (Switzerland)

PhD Advisor:

Lauren Kennedy, Translational, Biology, Medicine and Health, Virginia Tech (Graduated)

Vivian Zargarese, Virginia Tech Psychology

Dissertation Committee Member:

Ryan King, TBMH, Virginia Tech

Abdulrahman Alhaider, MS; Industrial and Systems Engineering, Virginia Tech

Hassan Farah, TBMH

Mentor:

Allison Straus

Virginia Tech Carilion School of Medicine, M1

2020-

Sunauz Moezzi

Virginia Tech Carilion School of Medicine, M1

2020

Kian Tehranchi

Virginia Tech Carilion School of Medicine, M2

2018-

Franklin Edwards

TMBH PhD student

Virginia Tech

2019

Hassan Farrah

TBMH PhD student

Virginia Tech

2019

Yang Chen

TBMH PhD student

Virginia Tech

2018

Rosemary Mallonee
Virginia Tech Carilion School of Medicine M1
2017-

Sevda Ozturkasari
Virginia Tech Landscape Architecture PhD student
2017

Steven Crane
Virginia Tech Carilion School of medicine M2
2016-

James "Harrison" Wade
Virginia Tech Carilion School of medicine M2
2016-

Grace Casola
Psychology Major-University of Virginia Student
June 2016-August 2016

Joseph Coro
English Major-Princeton Student
June 2016-August 2016

William Sheahan
PhD Student- Education at University of Rochester
September 2014-2015

Morgan McLeod
Medical Student
May 2014- 2015

Jonathan Umansky
Psychology student
May 2014-2015

Stewart Hutchison
Psychology student
May 2014-present

Martha (Libby) Weaver
Medical Student
May 2012-present
Outcomes:

Henrickson Parker, S., Midgley, K., Weaver, M. Sava, J., Burd, R. (under review). Measuring team coordination during trauma resuscitations: Reliability and application of a novel data collection tool.
Presentation: Weaver, M. Henrickson Parker, S. (2013) Research Review, University of Tennessee.

Kayvon Izadpanah
Medical Student
May 2013-November 2013
Outcomes:

Presentation: Izadpanah, K., Siddqui, I., Henrickson Parker, S. (2013). Understanding non-routine events in trauma resuscitation.

Presentation: Izadpanah, K., Siddqui, I., Henrickson Parker, S. (2013). The impact of pager notifications on trauma teamwork. *Best poster award

Imran Siddqui
Medical Student
May 2013-August 2013

Presentation: Siddqui, I., Izadpanah, K., Henrickson Parker, S. (2013). Team coordination tool used to identify and define Nonroutine Events (NREs) during trauma resuscitations

Aaron Laviana
Medical Student
May 2008-August 2008
Outcomes:

Peer reviewed publication: Henrickson Parker, S. Laviana, A., Wadhera, R., Wiegmann, D., Sundt, T. (2010). Development and Evaluation of an Observational Tool for Assessing Surgical Flow Disruptions and Their Impact on Surgical Performance. World Journal of Surgery 34(2), 353-361.

Co-Mentor:
Kirsten Midgley (With Terry Fairbanks, MD)
Medical Student
May 2012-present

Outcomes: Henrickson Parker, S., Midgley, K., Weaver, M. Sava, J., Burd, R. (under review). Measuring team coordination during trauma resuscitations: Reliability and application of a novel data collection tool.

Charlene Owen (With Steven Yule, PhD)

Psychology student

October 2011-October 2012

Outcomes: Undergraduate Thesis.

Rishi Wadhera (With Thor Sundt, MD)

Medical Student

May 2007-August 2008

Outcomes:

Research presentations at two surgical meetings

Peer reviewed publications:

Wadhera, R., Henrickson Parker, S., Burkhart, H., Greason, K., Neal, J., Levenick, K., Sundt, T.M. (2010) Is the "sterile cockpit" concept applicable to cardiovascular surgery critical intervals or critical events? The impact of protocol-driven communication during cardiopulmonary bypass. Journal of Thoracic and Cardiovascular Surgery 139, 312-319.* Best Student Paper award

Henrickson Parker, S., Wadhera, R., ElBardissi, A., Wiegmann, D., Sundt, T. (2009). Designing a Preoperative Briefing for the Cardiovascular Surgery Operating Room. Journal of the American College of Surgeons 208(6),1115-1123.

Henrickson Parker, S. Laviana, A., Wadhera, R., Wiegmann, D., Sundt, T. (2010). Development and Evaluation of an Observational Tool for Assessing Surgical Flow Disruptions and Their Impact on Surgical Performance. World Journal of Surgery 34(2), 353-361.

SERVICE

University Service

Destination Area Committee- Adaptive Brain and Behavior, 2017

Physical space review committee for Roanoke Campus, 2017

Review committee for new biostatistics hire for VTCSOM, 2017

Search committee for implementation science assistant professor, 2017

Hospital Service

Leadership Orientation, Carilion Clinic, 2017-present

Research Service Committee, Carilion Clinic, 2015-present

Committee Member, Education Advisory Board for Georgetown University and MedStar Health, 2015

Founding Advisory Board Member, Surgical Outcomes Research Group, 2014-2015

IRB 3 member, Institutional Review Board- MedStar Health Research Institute, 2013-2015

Event Reviewer, Event Review Team- MedStar Health, 2011-2015

Committee member, QUEST committee- MedStar Health, 2011-2013

Committee member, Safety Advisory Panel- Mayo Clinic, 2007-2008

Committee member, Simulation Curriculum Development Committee- Mayo Clinic, 2006-2008

Committee Member, Simulation Nursing Curriculum Development Committee- Mayo Clinic, 2006-2008

Professional Service:

Healthcare without walls, NEHI, national board, December 2017

Health Education Research Scholars Program (HERS), Co-Director, 2017-

Liaison Committee on Medical Education, Standard 9 self-study committee, 2017

Ad hoc reviewer: Implementation Science, BMJ Quality and Safety, Annals of Emergency Medicine, Journal of the American College of Surgeons, Journal of Evaluation in Clinical Practice, Annals of Surgery, 2017

Research Service Committee, Carilion Clinic, 2015-present

Advisor, American Board of Medical Specialties, Maintenance of Certification in Patient Safety Task Force- Society for Thoracic Surgeons, 2012-present

Agency for Healthcare Research and Quality Health Services Research and Quality grant review panel
Task force member, World Health Organization- Executive Leadership Curriculum Development, 2014-present

Case Management Volunteer, Miriam's Kitchen, 2011-2015

Public Service:

Part of work team to develop Carilion Clinic 5 year Quality and Safety Strategic plan

Develop and implement RCA² within Carilion Clinic

Roanoke Valley Unites Summit Invited Attendee

HONORS AND AWARDS

Teaching Excellence Award, Translational Biology, Medicine, and Health, 2019

Winner in the Organizational Efficiencies and Design category: *RCA2 and Human Factors Science to Increase Strength of Action Items Following Serious Patient Safety Events*, National Quality Forum Annual Conference 2019.

Awarded Internal inertial lab 3D movement suit, Virginia Tech, 2017

Visiting Professor in Simulation Education, Mayo Clinic, 2014
Postdoctoral Overseas Scholarship Award, University of Fribourg, 2014
Best Poster Award, MedStar Health Research Institute, 2014
Pitch Day Finalist, Robert Wood Johnson Foundation, 2013
Selected Capstone Presenter, Teaching Scholars- MedStar Health Research Institute, 2012
Alphonse Chapanis Best Student Paper award finalist, Human Factors and Ergonomics Society, 2012
Best Student Paper award, Human Factors and Ergonomics Society, Healthcare Technical Group, 2011
Alma Mater Outstanding Female Junior Award finalist, Wittenberg University, 2003
M. Alice Geiger Outstanding Female Senior Award, Wittenberg University, 2004

PROFESSIONAL SOCIETY MEMBERSHIP

2014-present, Society for Simulation in Healthcare
2011-present, Human Factors and Ergonomics Society: Healthcare Operating Room Track Planning, Group Member
2007; 2008; 2012, 2005-present, Human Factors and Ergonomics Society Healthcare Technical Group Member; Cognitive Engineering Technical
2006-2008, Mayo Clinic Human Factors in Healthcare Meeting Conference co-chair
2005, Human Factors and Ergonomics Society George Mason University Student Chapter, Vice President

I certify that this curriculum vitae is a current and accurate statement of my professional record.

Signature: _____ Date: _____