

Dr. Sarah Parker

Educational and Professional History

Education

University of Aberdeen
Non-U.S.
Ph.D. (Aug 01, 2008 - Jun 30, 2011)
Field of Study: Psychology

George Mason University
U.S.
M.A. (Aug 01, 2004 - Jun 30, 2006)
Field of Study: Psychology

Wittenberg University
U.S.
B.A. (Aug 01, 2000 - Jun 30, 2004)
Field of Study: Psychology

Professional Training

Post Doctoral Fellowship
National Center for Human Factors in Healthcare
United States
(Jul 01, 2011 – Jun 30, 2013)

Certifications

MERC Certification
Association of American Medical Colleges
(Jan 01, 2013 – Dec 31, 2013)

Professional/non-academic work positions

Senior Director, Carilion Clinic
Center for Simulation, Research and Patient Safety
(Feb 01, 2018 – Jan 04, 2021)

Director of Human Factors Research, Carilion Clinic
Carilion Clinic
(Jan 01, 2015 – Present)

Research Scientist, MedStar Health
National Center for Human Factors Engineering in Healthcare
(Jan 01, 2011 – Dec 31, 2015)

Data Analyst, Aberdeen, Scotland
World Health Organization
(Jan 01, 2010 – Dec 31, 2011)

Human Factors Analyst, Mayo Clinic
(Jan 01, 2006 – Dec 31, 2008)

Research Assistant, George Mason University
ARCH Lab
(Jan 01, 2004 – Dec 31, 2006)

Research Assistant, Wright-Patterson Airforce Base
Human Performance Lab
(Jan 01, 2002 – Dec 31, 2004)

Research Assistant, Wittenberg University
Learning Memory and Cognition Lab
(Jan 01, 2002 – Dec 31, 2004)

Academic work positions

Chair, Virginia Tech Carilion School of Medicine
Department of Health Systems and Implementation Science
United States
(Jan 04, 2021 – Present)

Associate Professor, Virginia Tech Carilion School of Medicine
Health Systems and Implementation Science
United States
(Jan 01, 2021 – Present)

Research Associate Professor, Virginia Tech
Department of Psychology
(Jan 01, 2020 – Present)

Research Associate Professor, Fralin Biomedical Research institute
Fralin Biomedical Research Institute at Virginia Tech Carilion
United States
(Jan 01, 2020 – Present)

Associate Professor, VTCSOM
Surgery

Roanoke, VA, US
(Sep 04, 2018 – Present)

Assistant Professor, Virginia Tech Carilion School of Medicine
Department of Basic Science Education
(Aug 01, 2015 – Dec 31, 2020)

Research Assistant Professor, Fralin Biomedical Research Institute
(Aug 01, 2015 – Present)

Research Assistant Professor, Virginia Tech
Department of Psychology
(Jan 01, 2015 – Present)

Assistant Professor, Georgetown University School of Medicine
Emergency Medicine
(Jan 01, 2014 – Dec 31, 2015)

Director of Education and Academic Affairs, MedStar Health
National Center for Human Factors in Healthcare
(Jan 01, 2013 – Dec 31, 2015)

Faculty Affiliate, George Mason University
(Jan 01, 2012 – Dec 31, 2015)

Awards and Honors

TEACH Award of Distinction: Scholarship of Teaching and Learning
Purpose of Recognition: Teaching and Advising
Effective Date: Oct 30, 2023

2023 VTCSOM Research Domain Mentor Award
Purpose of Recognition: Teaching and Advising
Organization: VTCSOM
Effective Date: Jan 12, 2023

Professional Achievement Award
Purpose of Recognition: Leadership
Effective Date: Sep 30, 2022
Additional Information: Professional achievement award given by Wittenberg University

Policy Fellowship
Award Status: Received
Purpose of Recognition: Leadership
Organization: Human Factors and Ergonomics Society
Effective Date: Jun 01, 2021

Organizational Efficiencies and Design Abstract Award
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Organization: National Quality Forum
Effective Date: Mar 26, 2019

Teaching Excellence Award
Award Status: Received
Purpose of Recognition: Teaching and Advising
Organization: Virginia Tech
Effective Date: Jan 01, 2019

Next Generation Innovator
Award Status: Received
Purpose of Recognition: Leadership
Organization: National Quality Forum
Effective Date: Mar 01, 2018

BMA medical book awards
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Effective Date: Jan 01, 2016

Visiting Professor in Simulation Education
Award Status: Received
Purpose of Recognition: Teaching and Advising
Organization: Mayo Clinic
Effective Date: Jan 01, 2014

Postdoctoral Overseas Scholarship Award
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Organization: University of Fribourg
Effective Date: Jan 01, 2014

Best Poster Award
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Organization: MedStar Health Research Institute
Effective Date: Jan 01, 2014

Pitch Day Finalist
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Organization: Robert Wood Johnson Foundation
Effective Date: Jan 01, 2013

Selected Capstone Presenter
Award Status: Received
Purpose of Recognition: Teaching and Advising
Organization: Teaching Scholars- MedStar Health Research Institute
Effective Date: Jan 01, 2012

Alphonse Chapanis Best Student Paper award finalist
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Organization: Human Factors and Ergonomics Society
Effective Date: Jan 01, 2012

Best Student Paper award
Award Status: Received

Purpose of Recognition: Research and Creative Activities
Organization: Human Factors and Ergonomics Society
Effective Date: Jan 01, 2011
Additional Information: Healthcare Technical Group

M. Alice Geiger Outstanding Female Senior Award
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Organization: Wittenberg University
Effective Date: Jan 01, 2004

Alma Mater Outstanding Female Junior Award finalist
Award Status: Received
Purpose of Recognition: Research and Creative Activities
Organization: Wittenberg University
Effective Date: Jan 01, 2003

Teaching/Education

Academic Leadership

Senior Director- Center for Simulation, Research and Patient Safety
Institution: Carilion Clinic, Roanoke, Virginia
(Feb 01, 2018 – Dec 31, 2020)

Gateway Course Director
Institution: TBMH, Roanoke, Virginia
(Jan 01, 2018 – Present)
Additional Information: Public Health and Implementation Science with Kathy Hosig, PhD.

Co-Director, TEACH HERS
Institution: Carilion Clinic, Roanoke, Virginia
(Sep 01, 2017 – Present)
Additional Information: I co-teach with Shari Whicker, PhD

Director- Human Factors Research
Institution: Carilion Clinic, Roanoke, Virginia
(Aug 01, 2015 – Present)

VTCSOM Courses Taught

VTCSOM Spring 2024

Block III, Year 1

Structure and Function of Healthcare Delivery

Discussion, Small Group (<12) (DSS): US Healthcare Delivery System & Population Health

VTCSOM Spring 2023

Block III, Year 1

Health Systems Science and Interprofessional Practice Population Health and Health Care Delivery

Lecture (LCT), Discussion, Large Group (>12) (DSL): Principles of Quality Improvement and Patient Safety

VTCSOM Fall 2022

Block I, Year 1

Research

Lecture (LCT): Is it Research or Quality Improvement

VTCSOM Spring 2022

Block III, Year 1

Health Systems Science and Interprofessional Practice Population Health and Health Care Delivery

Lecture (LCT), Discussion, Small Group (<12) (DSS), Discussion, Large Group (>12) (DSL): Principles of Quality Improvement and Patient Safety

Health Systems Science and Interprofessional Practice Population Health and Health Care Delivery

Lecture (LCT), Discussion, Small Group (<12) (DSS), Discussion, Large Group (>12) (DSL): Principles of Quality Improvement and Patient Safety

VTCSOM Fall 2021

Block I, Year 1

Introduction to Health Systems Science and Interprofessional Practice

Discussion, Large Group (>12) (DSL), Discussion, Small Group (<12) (DSS): HSS and Leadership in Healthcare Improvement

Research

Lecture (LCT): Is it Research or Quality Improvement

VTCSOM Spring 2021

Block IV, Year 1

Health Systems Science and Interprofessional Practice - Safety and Quality

Lecture (LCT), Discussion, Small Group (<12) (DSS), Discussion, Large Group (>12) (DSL): Introduction to Quality and Safety

VTCSOM Fall 2020

Block I, Year 1

Research

Lecture (LCT): Is it Research or Quality Improvement

VTCSOM Fall 2019

Block I, Year 1

Research

Lecture (LCT): Is it Research or Quality Improvement

VTCSOM Fall 2018

Block I, Year 1

Interprofessional Teamwork and Roles for Collaborative Practice

Lecture (LCT), Discussion, Large Group (> 12) (DSL): Teamwork Concepts & TeamSTEPPS

Research

Lecture (LCT): Is it Research or Quality Improvement

Block V, Year 2

Experience and Assessment of Quality and Leadership in Interprofessional Health Care Teams

Lecture (LCT): Team Leadership

VTCSOM Fall 2017

Block I, Year 1

Fundamentals and Foundations of Research

Lecture (LCT): Is it Research or Quality Improvement?

Interprofessional Teamwork and Roles for Collaborative Practice

Lecture (LCT), Discussion, Small Group (<12) (DSS): Teamwork Concepts & TeamSTEPPS

Block V, Year 2

Interprofessionalism

Lecture (LCT): Cognitive Biases that Influence Decision Making

Interprofessionalism

Lecture (LCT): Leadership & Team Performance

Interprofessionalism

Lecture (LCT): Systems Engineering in Health Care

VTCSOM Fall 2016

Block I, Year 1

Functional Biology of Cells and Tissues

Lecture (LCT): Human Factors and Systems Safety in Healthcare

Fundamentals and Foundations of Research

Lecture (LCT): Is it Research or Quality Improvement?

Graduate Medical Education Teaching Activities

Patient Safety: Goals, Tools & Techniques

Institution: Carilion Clinic, Roanoke

Instruction Type: Lecture

(Sep 24, 2019 – Sep 24, 2019)

Patient Safety: Goals, Tools & Techniques

Institution: Carilion Clinic GME, Roanoke, Virginia

Instruction Type: Lecture

(Sep 12, 2019 – Sep 24, 2019)

Patient Safety: Goals, Tools & Techniques

Institution: Carilion Clinic, Roanoke
Instruction Type: Lecture
(Sep 12, 2019 – Sep 12, 2019)

Patient Safety: Goals, Tools & Techniques
Institution: Medical Society of Virginia, Roanoke, Virginia
Instruction Type: Grand Rounds
(Sep 01, 2018 – Sep 30, 2018)

Grant Basics
Institution: Carilion Clinic Department of Surgery, Roanoke, Virginia
Instruction Type: Professional Development Workshop
(Feb 01, 2016 – Feb 28, 2018)

Advising and Mentoring

Merly Konathopally
Served as: Primary Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Aug 01, 2022 – Present)

Adam Jacobowitz
Served as: Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Aug 01, 2022 – Present)

Aakash Jain
Served as: Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Aug 02, 2021 – Present)

Rebekah Sayer
Served as: Co-Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Sep 01, 2020 – May 06, 2023)

Alison Strauss
Served as: Primary Research Mentor
Institution: Virginia Tech Carilion School of Medicine, 2 riverside circle, roanoke, va, 24016, usa
(Oct 15, 2019 – May 06, 2023)

Lisa Crisalli
Served as: Co-Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Aug 01, 2018 – May 08, 2021)

Kian Tehranchi
Served as: Co-Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Aug 01, 2018 – May 03, 2021)

Rosemary Mallonee
Served as: Research Mentor
Institution: Virginia Tech Carilion School of Medicine

(Jan 01, 2017 – Present)

James "Harrison" Wade
Served as: Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Jan 01, 2016 – Dec 31, 2019)

Steven Crane
Served as: Research Mentor
Institution: Virginia Tech Carilion School of Medicine
(Jan 01, 2016 – Dec 31, 2019)

Morgan McLeod
Served as: Research Mentor
Institution: Georgetown University
(Jan 01, 2014 – Dec 31, 2015)

William Sheahan
Served as: Specialty-Specific Advisor
Institution: University of Rochester
(Jan 01, 2014 – Dec 31, 2015)
Additional Information: Description of "Served as" Other: PhD

Directed Learning

Advised: Chinaka O
Role: Supervised Research
Institution: Virginia Tech, Translational Biology Medicine and Health, 2 Riverside Circle, Roanoke, va, 24016
(Oct 10, 2022 – Nov 10, 2022)

Advised: Kulkarni CS
Role: Committee member
Context Dependent Gaze Metrics for Evaluation of Laparoscopic Surgery Manual Skills
(Aug 01, 2021 – May 11, 2022)

Advised: Edwards III GF
Role: Advisor
Development of a Model for the Simulation of and Participant Performance Evaluation in Opioid Overdose Response and Naloxone Administration
Institution: Virginia Tech, Translational Biology Medicine and Health, 2 Riverside Circle, Roanoke, Virginia, 24016
(May 01, 2019 – Jun 26, 2023)

Advised: Farrah H
Role: Committee member
Translational Biology, Medicine and Health
Institution: Virginia Tech, Translational Biology Medicine and Health, Blacksburg, Virginia
(May 01, 2019 – Present)

Advised: Chen Y
Role: Supervised Research
Psychology
Institution: Virginia Tech, Translational Biology Medicine and Health

(Sep 03, 2018 – Oct 10, 2018)
 Additional Information: Description of "Served as" Other: PhD

Advised: Zagarese V
 Role: Committee Co-chair
 Leadership, Psychological Safety, Team Trust, and Performance: A Study of Surgical Teams
 Institution: Virginia Tech, Blacksburg
 (Aug 10, 2018 – Present)

Advised: Zagarese V
 Role: Advisor
 The impact of authoritarian and democratic leadership in acute action teams: A network approach
 Institution: Virginia Tech, Blacksburg, Virginia
 (Aug 01, 2018 – Jan 06, 2023)

Advised: Alhaider A
 Role: Committee member
 Institution: Virginia Tech, Grado Department of Industrial and Systems Engineering
 (Aug 02, 2017 – Present)

Advised: King R
 Role: Committee member
 Effects of Perfusate Composition (Na⁺ and Ca²⁺) on Cardiac Electrical and Mechanical Function in the Isolated Langendorff-Perfused Heart
 Institution: Virginia Tech, Translational Biology Medicine and Health
 (Aug 01, 2017 – Dec 04, 2020)

Advised: Kennedy L
 Role: Supervised Research
 Evaluation of biofeedback components for the management of acute stress in healthcare
 Institution: Virginia Tech, Roanoke, Virginia
 (Aug 01, 2015 – Oct 31, 2018)
 Additional Information: Currently a postdoc at Harvard University

Scholarly Activity

Scholarly and Professional Publications

Book chapter or section

Wolf L; **Parker SH**; Gleason JL, (Dec 15, 2020). Human factors in healthcare. In *Patient Safety and Quality Improvement in Healthcare: A Case-Based Approach*. doi: 10.1007/978-3-030-55829-1_20. **Published**

Wolf LD; **Parker S**; Gleason JL, Shah R; Godambe S, (Nov 01, 2020). Patient Safety and Quality Improvement in Healthcare: A Case-Based Approach. In *Patient Safety and Quality Improvement in Healthcare A Case-Based Approach*. Springer Nature doi: 10.1007/978-3-030-55829-1. ISBN-13: 978-3-030-55828-4. **Published**

Wolfe H; **Parker S**; Sutton RM, Deutsch E; Perry SJ; Gurnaney H, (Jul 01, 2019). Improving patient outcomes after resuscitation with systematic debriefing. In *Comprehensive Healthcare Simulation Book Series. Comprehensive Healthcare Simulation – Improving Healthcare Systems* doi: 10.1007/978-3-030-72973-8_19. ISBN-13: 978-3-030-72972-1. **Published**

Parker S, Flin R; Youngson G; Yule S, (Jun 01, 2015). Leadership. In *Enhancing Surgical Performance: A Primer in Non-Technical Skills*. CRC Press **Published**

Parker SH; Perry SJ, (Jan 01, 2014). Matching cognitive aids and the “real work” of health care in support of surgical microsystem teamwork. In *Cognitive Systems Engineering in Health Care*. doi: 10.1201/b17737. **Published**

Refereed journal article

Parker SH; Jesso MN; Wolf LD; Leigh KA; Booth S; Gualandi N; Garrick RE; Kliger AS; Patel PR, (Jul 01, 2024). Human Factors Contributing to Infection Prevention in Outpatient Hemodialysis Centers: A Mixed Methods Study. *American Journal of Kidney Diseases* 84 18 - 27 doi: 10.1053/j.ajkd.2023.12.024. PMID: 38447708. **Published**

Edwards GF; Mierisch C; Mutcherson B; Strauss A; Coleman K; Horn K; **Parker SH**, (Mar 28, 2024). Developing medical simulations for opioid overdose response training: A qualitative analysis of narratives from responders to overdoses. *PLOS ONE* 19 doi: 10.1371/journal.pone.0294626. **Published**

Rockwell M; Frazier M; Stein J; Dulaney K; **Parker S**; Rockwell J; Sunstein C; Epling Jr. J, (Jul 01, 2023). A ‘Sludge Audit’ for Health System Colorectal Cancer Screening Services. *American Journal of Managed Care* **Published**

Deng S; Oh J; Wang T; **Parker SH**; Lau NK, (Jan 01, 2023). Assessing Laparoscopic Surgical Skills of Trainees with Scene Independent and Dependent Eye Gaze Metrics. *Proceedings of the Human Factors and Ergonomics Society* 67 562 - 567 doi: 10.1177/21695067231192642. **Published**

Wolf L; Gorman K; Clark J; Gleason J; Henrickson Parker S, (Dec 01, 2022). Implementing Root Cause Analysis and Action: Integrating Human Factors to Create Strong Interventions and Reduce Risk of Patient Harm. *JOURNAL OF PATIENT SAFETY* 18 E1160 - E1166 doi: 10.1097/PTS.0000000000001042. **Published**

Edwards GF; Zagarese V; Tulk Jesso S; Jesso M; Harden SM; **Parker SH**, (Jan 01, 2022). Designing healthcare for human use: Human factors and practical considerations for the translational process. *Frontiers in Health Services* 2 doi: 10.3389/frhs.2022.981450. **Published**

Gerrish A; Strayer T; Glick RE; Safford SD; **Parker S**, (Oct 01, 2017). Leadership in Action: Identifying patterns of leadership in a mass casualty simulation. *Journal of The American College of Surgeons* doi: 10.1016/j.jamcollsurg.2017.07.267. **Published**

Parker S; McCusker M; Foti R; Hauenstein N; Wade J; Burd R, Leadership discourse predicts primary and secondary survey efficiency in trauma resuscitation. *Journal of Surgical Research* **Submitted**

Zagarese V; Hernandez J; Hauenstein N; **Parker S**; Foti R, The Surgical Time-Out: The Relationship Between a Safety-task Anchor and Perceptions of Surgical Team Workflow. *Journal of American College of Surgeons* **Submitted**

Journal article

Hamill ME; Collin GR; Bath JL; Boone SM; Harvey EM; Tegge AN; Sprinkel WE; Toomey SA; Collier BR; Bower KL; Wang MM; Faulks ER; Matos MA; Hamill BE; Bean SL; Nussbaum MS; **Parker SH**, (Apr 01, 2024). Impact of Standardized Multidisciplinary Critical Care Training on Confidence with Critical Illness and Attitudes Towards Interprofessional Education and Multidisciplinary Care. *JOURNAL OF INTENSIVE CARE MEDICINE* 39 320 - 327 doi: 10.1177/08850666231201528. **Accepted**

Keller S; Yule S; Smink DS; Zagarese V; Safford S; Valea FA; Beldi G; Henrickson Parker S, (Sep 01, 2023). Alone Together: Is Strain Experienced Concurrently by Members of Operating Room Teams?: An Event-based Study. *Annals of surgery open : perspectives of surgical history, education, and clinical approaches* 4 e333 doi: 10.1097/as9.0000000000000333. PMID: 37746629. **Published**

Edwards GF; Miersch C; Strauss A; Mutcherson R; Coleman K; Horn K; **Parker S**, (Feb 13, 2023). Evaluating Rescuer Performance in Response to Opioid Overdose in a Community Setting: Evidence for Medically Appropriate Process Measures. *Preventative medicine reports* **Published**

Deng S; Wang T; Lau N; **Parker S**; Hartman-Kenzler J; Barnes L; Safford S, (Oct 27, 2022). Predicting Laparoscopic Surgical Skills of Trainees with Eye Metrics Associated with Focused Attention and Workload. *Proceedings of the 2022 HFES 66th International Annual Meeting 66* **Published**

Kulkarni C; Lau N; Wang T; Deng S; Hartman-Kenzler J; Barnes LE; **Parker S**; Safford S, (Sep 19, 2022). Scene Dependent, Feedforward Eye-gaze Metrics Can Differentiate Technical Skill Levels of Trainees in Laparoscopic Surgery. *Surgical Endoscopy* doi: 10.1007/s00464-022-09582-3. **Published**

Tulk Jesso S; Kelliher A; Sanghavi H; Martin T; **Parker S**, (Apr 07, 2022). Inclusion of clinicians in the development and evaluation of clinical AI tools: A systematic literature review. *Frontiers in Psychology* 13 doi: 10.3389/fpsyg.2022.830345. **Published**

Kurtz CE; Peng Y; Jesso M; Sanghavi H; Kuehl DR; **Parker SH**, (Mar 01, 2022). Using a human factors-centric approach to development and testing of a face shield designed for health care workers: A COVID-19 case study for process and outcomes. *American Journal of Infection Control* 50 306 - 311 doi: 10.1016/j.ajic.2021.10.033. **Published**

Perry S; Catchpole K; Rivera J; **Parker S**; Gosbee J, (Mar 01, 2021). Strangers in a Strange Land: Understanding professional challenges for human factors/ergonomics and healthcare. *Applied Ergonomics* doi: 10.1016/j.apergo.2019.103040. **Published**

Crisalli L; Collins J; Norbo W; **Parker S**; Plaster E; Wattsman T-A; Safford S, (Mar 01, 2021). Anxiety and Adverse Childhood Events Are Associated With Increased Perioperative Pain In Children. *Pediatrics* 147 928 - 928 doi: 10.1542/peds.147.3ma9.928a. **Published**

Lau N; Hartman-Kenzler J; Fichtel E; Park J; Ponnala S; **Parker SH**; Fitzgibbons S; Safford SD, (Feb 07, 2021). Attending Surgeons Demonstrate Greater Correlations of Skill Assessment and Anticipation of Adverse Events Than Residents During Laparoscopic

Cholecystectomy. *Journal of Surgical Research* 262 140 - 148 doi: 10.1016/j.jss.2020.12.064. **Published**

Aitken JA; Torres EM; Kaplan S; DiazGranados D; Su L; **Parker S**, (Jan 01, 2021). Influence of simulation-based training on reflective practice. *BMJ Simulation and Technology Enhanced Learning* doi: 10.1136/bmjstel-2021-000870. **Published**

Keller S; Yule S; Smink DS; Zagarese V; Safford SD; **Parker S**, (Dec 01, 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 doi: 10.1186/s12893-020-00937-y. **Published**

Howe J; **Parker S**; Wiggerman N; Zagarese V, (Nov 03, 2020). The Role of Health Care Human Factors in Responding to COVID-19: Findings From an Industry Survey. *Ergonomics in Design* 29 29 - 32 doi: 10.1177/106480462097147. **Published**

Parker S; Lei X; Fitzgibbons S; Metzger T; Safford SD; Kaplan S, (Nov 01, 2020). The Impact of Surgical Team Familiarity on Length of Procedure and Length of Stay: Inconsistent Relationships Across Procedures, Team Members, and Sites. *World Journal of Surgery* 44 doi: 10.1007/s00268-020-05657-1. **Published**

Franklin Edwards, 3rd G; Mierisch C; Mutcherson B; Horn K; Henrickson Parker S, (Oct 21, 2020). A review of performance assessment tools for rescuer response in opioid overdose simulations and training programs. *Preventive medicine reports* 20 doi: 10.1016/j.pmedr.2020.101232. PMID: 33163333. **Published**

Keller S; Yule S; Zagarese V; **Parker S**, (Jun 07, 2020). Predictors and triggers of incivility within healthcare teams: a systematic review of the literature. *BMJ open* 10 doi: 10.1136/bmjopen-2019-035471. PMID: 32513884. **Published**

Hamill ME; Collin GR; Faulks ER; Bath J; Harvey E; Tegge A; Sprinkle W; Toomey S; Cromer A; Collier BR; Bower KL; Wang M; Lollar DI; Matos M; Hamill B; Gillen JR; Lindberg G; **Parker S**, (Jan 01, 2020). Impact of the FCCS Course on Interprofessional Attitudes and Confidence with Critical Illness. *Critical Care Medicine* 48 496 - 496 doi: 10.1097/01.ccm.0000643072.44205.b5. **Published**

McLeod P; Cunningham Q; Diaz-Granados D; Dodoiu D; Kaplan S; Keyton J; Larson N; LeNoble C; Marsch S; O'Neill T; **Parker S**; Semmer N; Shuffler M; Su L; Tschan F; Waller M, (Dec 01, 2019). Hacking Teamwork in Healthcare: Addressing Adverse Effects of Ad Hoc Team Composition in Critical Care Medicine. *Health Care Management Review* doi: 10.1097/HMR.0000000000000265. **Published**

Kennedy-Metz L; Weiss P; **Parker SH**, (Sep 06, 2019). Results of exploratory investigation into adherence to auditory coping instructions during an acutely stressful task. *STRESS-THE INTERNATIONAL JOURNAL ON THE BIOLOGY OF STRESS* 23 144 - 152 doi: 10.1080/10253890.2019.1660317. PMID: 31451024. **Published**

Kennedy-Metz L; Weiss PM; **Parker S**, (Sep 01, 2019). Results of exploratory investigation into adherence to auditory coping instructions during an acutely stressful task. *Stress* **Published**

Fichtel E; Lau N; Park J; Henrickson Parker S; Ponnala S; Fitzgibbons S; Safford SD, (Jul 01, 2019). Eye tracking in surgical education: gaze-based dynamic area of interest can discriminate adverse events and expertise. *Surgical Endoscopy* 33 doi: 10.1007/s00464-018-6513-5. **Published**

Park J; Ponnala S; Fichtel E; Tehranchi K; Fitzgibbons S; **Parker S**; Lau N; Safford SD, (Jun 01, 2019). Improving the Intraoperative Educational Experience: Understanding the Role of Confidence in the Resident-Attending Relationship. *Journal of Surgical Education* doi: 10.1016/j.jsurg.2019.02.012. **Published**

Kennedy L; **Parker S**, (May 01, 2019). Biofeedback as a stress management tool: a systematic review. *Cognition, Technology & Work* 21 doi: 10.1007/s10111-018-0487-x. **Published**

Fong A; Komolafe T; Franklin E; **Parker S**, (Feb 01, 2019). Using passively collected medication administration and double-check data to infer social network influence in intensive care units. *Social Network analysis and Mining* doi: 10.1007/s13278-019-0571-0. **Published**

Henrickson Parker S; Schmutz JB; Manser T, (Jun 01, 2018). Training Needs for Adaptive Coordination: Utilizing Task Analysis to Identify Coordination Requirements in Three Different Clinical Settings. *Group and Organization Management* 43 504 - 527 doi: 10.1177/1059601118768022. **Published**

Kennedy L; **Parker S**, (May 01, 2018). Biofeedback as an Acute Stress Management Tool for Professionals: A Systematic Review. *Cognition, Technology & Work* **Accepted**

Parker S; Schmutz JB; Manser T, (Apr 01, 2018). Training Needs for Adaptive Coordination: Utilizing Task Analysis to Identify Coordination Requirements in Three Different Clinical Settings. *Group & Organization Management* 43 504 - 527 **Published**

Kennedy L; **Parker S**, (Apr 01, 2018). Timing of Coping Instruction Presentation for Real-Time Acute Stress Management: Potential Implications for Improved Surgical Performance. *Journal of Healthcare Informatics Research* 1 - 21 doi: 10.1109/ICHI.2016.101. **Published**

Kennedy L; **Parker S**, (Mar 01, 2018). Timing of coping instruction presentation for real-time acute stress management: Potential implications for improved surgical performance. *Journal of Healthcare Informatics Research* doi: 10.1007/s41666-018-0016-y. **Accepted**

Frazier S; **Parker S**, (Jan 01, 2018). Measurement of physiological responses to acute stress in multiple occupations: A systematic review and implications for front line healthcare providers. *Translational Behavioral Medicine* doi: 10.1093/tbm/iby019. **Published**

Park J; **Parker S**; Safford SD, (Nov 01, 2017). Surgical Trainees' Confidence in the Operating Room Improves over Time with a Corresponding Increase in Responsibility. *The American Surgeon* 83 doi: 10.1177/000313481708301102. **Published**

Park J; **Parker SH**; Safford S, (Nov 01, 2017). Surgical Trainees' Confidence in the Operating Room Improves over Time with a Corresponding Increase in Responsibility. *The American surgeon* 83 e421 - e423 PMID: 30454224. **Published**

Park J; **Parker S**; Safford SD, (Nov 01, 2017). Surgical trainees' confidence in the OR improves over time with a corresponding increase in responsibility. *The American Surgeon* 83 421 - 423 **Published**

Parker S; Metzger T; Lei X; Fitzgibbons S; Safford SD; Kaplan S, (Oct 01, 2017). Dissecting Team Familiarity: The Impact of Dyad Familiarity on Turnover Time and Length of Surgery. *Journal of the American College of Surgeons* 225 doi: 10.1016/j.jamcollsurg.2017.07.817. **Published**

Gerrish A; Strayer T; Glick RE; Safford SD; **Parker S**, (Oct 01, 2017). Leadership in Action: Identifying patterns of leadership in a mass casualty simulation. *J Am Coll Surg*
Published

Flach J; Feufel M; Reynolds P; **Parker S**; Kellogg K, (Sep 01, 2017). The Dynamics of Muddling Through. *Applied Ergonomics* 63 133 - 141 doi: 10.1016/j.apergo.2017.03.017.
Published

Fong A; Clark L; Cheng T; Franklin E; Fernandez N; Ratwani R; **Parker S**, (Jun 01, 2017). Identifying influential individuals on intensive care units: Using cluster analysis to explore culture. *Journal of Nursing Management*. doi: 10.1111/jonm.12476. **Published**

Fernandez R; Shah S; Rosenman ED; Kozlowski SW; **Parker S**; Grand JA, (Apr 01, 2017). Developing Team Cognition. *Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare* 12 doi: 10.1097/sih.0000000000000200. **Published**

Day TE; Henrickson Parker S; Lederman V; McKetta D; Spraycar A, (Jan 01, 2017). Evaluating New Skill Sets for Performance Improvement. *The Health Care Manager* 36 doi: 10.1097/hcm.000000000000157. **Published**

Webman R; Fritzeen J; Yang J; Ye GF; Mullan PC; Qureshi FG; **Parker S**; Sarcevic A; Marsic I; Burd RS, (Oct 01, 2016). Classification and team response to nonroutine events occurring during pediatric trauma resuscitation. *journal of trauma and acute care surgery* 81 666 - 673 doi: 10.1097/TA.0000000000001196. **Published**

Fernandez R; Mitchell S; Ehrmantraut R; Meschke JS; Simcox NJ; Wolz SA; **Parker S**, (Jul 01, 2016). Proactive Risk Assessment for Ebola-Infected Patients: A Systematic Approach to Identifying and Minimizing Risk to Healthcare Personnel. *Infection Control & Hospital Epidemiology* 37 doi: 10.1017/ice.2016.78. **Published**

Hu YY; **Parker S**; Lipsitz SR; Arriaga AF; Peyre SE; Corso KA; Roth EM; Yule SJ; Greenberg CC, (Jan 01, 2016). Surgeons' Leadership Styles and Team Behavior in the Operating Room. *Journal of the American College of Surgeons* 222 doi: 10.1016/j.jamcollsurg.2015.09.013. **Published**

Webman R; Fritzeen J; Yang J; Ye G; Mullan PC; Qureshi FG; **Parker S**; Sarcevic A; Marsic I; Burd RS, (Jan 01, 2016). Classification and Team Response to Non-Routine events occurring during pediatric Trauma Resuscitation. *Journal of Trauma and Acute Care Surgery* 81 666 - 673 **Published**

Fernandez R; Ehrmantraut R; Meschke SJ; Simcox NJ; Wolz SA; **Parker S**, (Jan 01, 2016). Proactive risk assessment for Ebola infected patients: A systematic approach to identify and minimize risk for healthcare personnel. *The Society for Healthcare Epidemiology of America* **Published**

Yule S; **Parker S**; Wilkinson J; McKinley A; MacDonald J; Neill A; McAdam T, (Nov 01, 2015). Coaching Non-technical Skills Improves Surgical Residents' Performance in a Simulated Operating Room. *Journal of surgical education* 72 doi: 10.1016/j.jsurg.2015.06.012. **Published**

Parker S, (Jan 01, 2015). Measuring team coordination during trauma resuscitations: Reliability and application of a novel data collection tool. **No Status**

Parker S; Flin R; McKinley A; Yule S, (Jan 01, 2014). Factors influencing surgeons' intraoperative leadership: video analysis of unanticipated events in the operating room. *World journal of surgery* 38 doi: 10.1007/s00268-013-2241-0. **Published**

Parker S; Flin R; McKinley A; Yule S, (Jun 01, 2013). The Surgeons' Leadership Inventory (SLI): a taxonomy and rating system for surgeons' intraoperative leadership skills. *American journal of surgery* 205 doi: 10.1016/j.amjsurg.2012.02.020. **Published**

Schiebel N; **Parker S**; Bessette RR; Cleveland EJ; Neeley JP; Warfield KT; Barth MM; Gaines KA; Naessens JM, (Jan 01, 2013). Honouring patient's resuscitation wishes: a multiphased effort to improve identification and documentation. *BMJ quality & safety* 22 doi: 10.1136/bmjqs-2012-000928. **Published**

Parker S; Yule S; Flin R; McKinley A, (Sep 01, 2012). Surgeons' leadership in the operating room: an observational study. *American journal of surgery* 204 doi: 10.1016/j.amjsurg.2011.03.009. **Published**

Wears RL; **Parker SH**; Cohen M; Carroll J; Perry S; Manser T, (Sep 01, 2012). A wealth of information creates a poverty of attention?: Understanding information requirements at handovers. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 56 860 - 862 doi: 10.1177/1071181312561180. **Published**

Parker S; Yule S; Flin R; McKinley A, (Jul 01, 2011). Towards a model of surgeons' leadership in the operating room. *BMJ quality & safety* 20 doi: 10.1136/bmjqs.2010.040295. **Published**

Brown ML; **Parker S**; Quiñonez LG; Li Z; Sundt TM, (Feb 01, 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 doi: 10.1097/SLA.0b013e3182061c69. **Published**

Wiegmann DA; Eggman AA; Elbardissi AW; **Parker S**; Sundt, 3rd TM, (Sep 01, 2010). Improving cardiac surgical care: a work systems approach. *Applied ergonomics* 41 doi: 10.1016/j.apergo.2009.12.008. **Published**

Parker S; H B; G G, (Mar 01, 2010). The successful application of simulation-based training in thoracic surgery residency. *Journal of Thoracic and Cardiovascular Surgery* doi: 10.1016/j.jtcvs.2009.10.029. **Published**

Parker S; Laviana AA; Wadhwa RK; Wiegmann DA; Sundt, 3rd TM, (Feb 01, 2010). Development and evaluation of an observational tool for assessing surgical flow disruptions and their impact on surgical performance. *World journal of surgery* 34 doi: 10.1007/s00268-009-0312-z. **Published**

Wadhwa RK; **Parker S**; Burkhart HM; Greason KL; Neal JR; Levenick KM; Wiegmann DA; Sundt, 3rd TM, (Feb 01, 2010). Is the "sterile cockpit" concept applicable to cardiovascular surgery critical intervals or critical events? The impact of protocol-driven communication during cardiopulmonary bypass. *The Journal of thoracic and cardiovascular surgery* 139 doi: 10.1016/j.jtcvs.2009.10.048. **Published**

Wiegmann D; Suther T; Neal J; **Parker S**; Sundt TM, (Jun 01, 2009). A human factors analysis of cardiopulmonary bypass machines. *The journal of extra-corporeal technology* 41 **Published**

Parker S, (Jan 01, 2009). Evaluation tools in simulation learning: Performance and self-efficacy in emergency response. *Clinical Simulation in Nursing* 5 e35 - e43 doi: 10.1016/j.ecns.2008.10.003. **Published**

Weigmann D; Suther T; Neal J; **Parker S**; Sundt T, (Nov 01, 2008). Identifying methods to improve heart surgery: an operative approach and strategy for implementation on an organizational level. *European Journal of Cardio-Thoracic Surgery* doi: 10.1016/j.ejcts.2008.07.007. **Published**

Edwards F; Mierisch C; Mutcherson R; Strauss A; Coleman K; Horn K; **Parker S**, Development of Medical Simulations for Opioid Overdose Response Training: Evidence from Firsthand Accounts of Out-of-Hospital Overdoses. **Submitted**

Mierisch C; Mutcherson R; Horn K; hernandez S; Coleman K; Strauss A; **Parker S**, Validation of an evaluation instrument for rescuer response to simulated opioid overdose scenarios, FORSE, using Kane's Framework. **In preparation**

Edwards F; Mierisch C; Mutcherson R; Strauss A; Hernandez S; Coleman K; Horn K; **Parker S**, Validation of an evaluation instrument for rescuer response to simulated opioid overdose scenarios, FORSE, using Kane's Framework. **In preparation**

Presentations to professional organizations

Conference paper or presentation

International

Ishida A; Martin T; **Parker S**; Franusich D; Knapp R; Gracanin D; Tasooji R; Zagarese V; Ishida A, "Reimagining medical workspaces through on-site observations and bodystorming", Association of Collegiate Schools of Architecture 110th Annual Meeting, ACSA, Los Angeles, CA (Mar 08, 2023)

Epling Jr. JW; Rockwell M; Stein J; Davis G; Rockwell J; **Parker S**, "'Sludge Audit" to identify barriers to colorectal cancer screening", North American Primary Care Research Group 50th Annual Conference, North American Primary Care Research Group, Phoenix, AZ (Nov 22, 2022)

Deng S; Kulkarni C; Wang T; Hartman-Kenzler J; Barnes LE; **Parker SH**; Safford SD; Rajamohan S; Lau N, "Differentiating Laparoscopic Skills of Trainees with Computer Vision Based Metrics", (Sep 01, 2021)

Kulkarni CS; Wang T; Lau N; Hartman-Kenzler J; **Parker S**; Rajamohan S; Barnes LE; Safford S, "Applying deep learning to provide eye-gaze guidance for the peg transfer task.", The 16th Annual Academic Surgical Congress, The Association for Academic Surgery (AAS) and The Society of University Surgeons (SUS), Virtual (Feb 03, 2021)

Parker S, "Human Factors for Entrepreneurs", VT Global Entrepreneur Challenge, Roanoke, VA (Aug 30, 2019)

Gracanin DR; Knapp B; Martin T; **Parker S**, "Smart Virtual Care Centers in the Context of Performance and Privacy", 15th International Conference on Telecommunicaitons (ConTel), Graz, Austria (Jul 31, 2019)

Parker S, "Unpacking the Influence of Intragroup Factors in Healthcare Teams", Society for Industrial and Organizational Psychology Annual Meeting, Washington DC (Apr 30, 2019)

Whicker SA; Rudd M; **Parker S**, "Fostering the Development of Scholars through Collaborative Learning & Practice", Society of Academic Continuing Medical Education (SACME), Charleston, SC (Feb 28, 2019)

Kennedy L; **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 (Oct 31, 2018)

Keller S; **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 (Oct 31, 2018)

Parker S, "Surgeons' Intraoperative Leadership", International Meeting on Simulation in Healthcare, Society for Simulation in Healthcare, Orlando, FL (Jan 29, 2018)

Kennedy L; **Parker S**, "Evaluation of biofeedback interface components for the management of acute stress in healthcare", University of Neuchâtel Colloquium, University of Neuchâtel, Neuchâtel, Switzerland (Oct 19, 2017)

Kennedy L; **Parker S**, "Making MATB-II medical: Pilot testing results to determine a novel lab-based, stress-inducing task", International Symposium on Human Factors and Ergonomics in Health Care, Human Factors and Ergonomics Society, New Orleans, LA (Mar 06, 2017)

Kennedy L; **Parker S**, "Timing of coping instruction presentation for real-time acute stress management: Long-term implications for improved surgical performance", International Workshop on Mining Wearable Data for Healthcare and IEEE International Conference on Healthcare Informatics, IEEE, Chicago, IL (Oct 04, 2016)

Parker S, "None of us is smart as all of us: Understanding team coordination in trauma resuscitation", Psychology Research Day, University of Fribourg, (Dec 31, 2014)

Parker S, "Anatomy of a Leader", Patient Safety Congress, Patient Safety Congress, Birmingham, UK (Dec 31, 2011)

Parker S, "The Science of What Makes Us Human: Applications for Cardiac Surgery", Applications for Cardiac Surgery Heart Hospital, London, UK (Dec 31, 2009)

National

Norris M; Mutcherson R; Karp N; Katz A; Grohs J; Musick D; Lane H; **Parker S**; Gonzalo J, "An Investigation into Operationalizing Health Systems Thinking in Undergraduate Medical Education", American Educational Research Association 2024 Annual Meeting, Philadelphia, PA (Apr 12, 2024)

Epling Jr. JW; Rockwell M; Stein J; Davis G; Rockwell J; **Parker S**, "Identifying "Sludge" in the Processes for Colorectal Cancer Screening", 2023 Annual Conference, Society of Teachers of Family Medicine, Tampa, FL (May 02, 2023)

Parker S; Karp N; Morrow C; Learman L, "The Land of Well-Fit Toys: Building a Health Systems Science Department within a School of Medicine", AMA Health Systems Science Summit, American Medical Association, Chicago, IL (Dec 05, 2022)

Parker S, "Teamwork and team performance, what do we know?", Society of Cardiovascular Anesthesiologists, Palm Springs, CA (May 15, 2022)

Parker S, "Human Factors in Dialysis", National Kidney Foundation, National Kidney Foundation, webinar (Mar 31, 2020)

Hamill ME; Collin GR; Faulks ER; Bath JL; Harvey EM; Tegge A; Sprinkle W; Toomey S; Cromer A; Collier BR; Bower KL; Wang M; Matos M; Hamill BE; Gillen JR; Lindberg G; **Parker S**, "Impact of the FCCS Course on Interprofessional Attitudes and Confidence with Critical Illness", Society for Critical Care Medicine 49th Critical Care Congress, Orlando, FL (Feb 16, 2020)

Crisalli LM; Collins J; Norbo W; **Parker SH**; Plaster E; Wattsman T-A; Safford SD, "Preoperative anxiety is associated with increased pain in pediatric general surgery", (Feb 04, 2020)

Crisalli L; Collins J; Norbo W; **Parker S**; Plaster E; Wattsman T-A; Safford SD, "Preoperative anxiety is associated with increased pain in pediatric general surgery", 15th Annual Academic Surgical Congress (ASC), The Association for Academic Surgery (AAS) & Society of University Surgeons (SUS), Orlando, FL (Feb 04, 2020)

Hamill ME; Freeman DW; **Parker S**; Trevillian T; Safford SD, "Differences in Pediatric and Adult Methods of Suicide and Self-Inflicted Injury at a Rural Level 1 Pediatric Trauma Center", Pediatric Trauma Society 6th Annual Meeting, San Diego, California (Nov 15, 2019)

Parker S, "Targeting Zero Infections: Human Factors Engineering and its Application to Dialysis", American Society of Nephrology, American Society of Nephrology, webinar (Sep 30, 2019)

Khunlertkit NA; Rivera JA; Ponnala S; Yin S; Wolf LD; **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 Illinois (Mar 31, 2019)

Clark J; Gleason JL; **Parker S**; Wolf LD, "RCA2 and Human Factors Science to Increase Strength of Action Items Following Serious Patient Safety Events", National Quality Forum, Washington DC (Feb 28, 2019)

Parker S; Jesso M, "Integrating Usability into the Procurement Process: Mixed Results and Future Directions", Human Factors and Ergonomics Society, Philadelphia, PA (Sep 30, 2018)

Rayo M; Fairbanks RT; **Parker S**; Wolf LD; Kennedy R, "Spreading the Word: Improving Outcomes with Human Factors Engineering (When common sense is not enough)", Human Factors and Ergonomics Society, Philadelphia, PA (Sep 30, 2018)

Parker S, "Accident Theory: Why Do Bad Things Happen to Good People", AATS Surgical Patient Safety Course, Boston, MA (Jun 30, 2018)

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 (Jun 30, 2018)

Parker S, "Group Workshop #1 Behavioral Science", AATS Surgical Patient Safety Course, Boston, MA (Jun 30, 2018)

McCusker ME; Perry SKB; Grand J; **Parker S**; Fernandez R; Pappada SM, "Research Methods for Healthcare Teams: Technology, Opportunities, and Lessons Learned.", Society for Industrial Organizational Psychology, Chicago, IL (Apr 19, 2018)

Fichtel E; Park J; **Parker S**; Lau N; Safford SD, "Eye tracking in Educational Assessment: An automated Procedure to Define Dynamic Areas of Interest", 13th Annual Academic Surgical Congress, Jacksonville , FL (Jan 31, 2018)

Fitzgibbons S; Kaplan S; Lei X; Safford SD; **Parker S**, "Operating Room Teams: Does Familiarity Make a Difference?", 13th Annual Academic Surgical Congress, Jacksonville Florida (Jan 31, 2018)

Gerrish A; Strayer T; Glick RE; Safford SD; **Parker S**, "Leadership in Action: Identifying patterns of leadership in a mass casualty simulation", American College of Surgeons Clinical Congress, San Diego, CA (Oct 31, 2017)

Parker S, "Teamwork and System Safety", National Patient Safety Foundation, Orlando Florida (May 31, 2017)

Kennedy L, "Making MATB-II medical: Pilot-testing results to determine a novel lab-based, stress-inducing task", Human Factors and Ergonomics in Healthcare Conference, (Mar 31, 2017)

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 (Mar 31, 2017)

Parker S, "Principles of High Functioning Teams and Effective Leadership Behaviors", AATS Surgical Patient Safety Course, American Association for Thoracic Surgery, Boston (Jun 25, 2016)

Parker S; Marshall B; Bunnell DJ, "Open Microphone Case Presentations: What went wrong?", AATS Surgical Patient Safety Course, American Association for Thoracic Surgery, Boston (Jun 25, 2016)

Parker S, "How Human Factors Professionals Understand Error: Frameworks for Understanding, Models and Classification Systems", AATS Surgical Patient Safety Course, American Association for Thoracic Surgery, Boston (Jun 24, 2016)

Parker S, "Medical Devices: Ergonomic Device Design and Evaluation", AATS Surgical Patient Safety Course, American Association for Thoracic Surgery, Boston (Jun 24, 2016)

Parker S; Marshall BM, "TOOLS FOR UNDERSTANDING SAFETY AND ERROR", AATS Surgical Patient Safety Course, American Association for Thoracic Surgery, (Jun 24, 2016)

Parker S; Patterson SL, "Not your mamma's team training", Human Factors and Ergonomics Society Healthcare, (Apr 16, 2016)

Fletcher TL; **Parker S;** Fernandez R, "Defining and measuring advanced constructs in the wild", Society of Industrial/Organizational Psychologists, (Apr 14, 2016)

Parker S, "Danger Will Robinson! Identify High Risk PPE-Related Occupational Activities", Society for Simulation in Healthcare, (Jan 20, 2016)

Parker S, "Leadership and decision making in adaptive action teams: Theory, research and practice", InGroup Annual Meeting, (Jul 25, 2015)

Parker S, "Adaptive coordination in trauma", Children's National Medical Center, Washington DC (Jun 09, 2015)

Xiao Y; Hallbeck S; Blocker RC; **Parker S,** "Building High-Performance Surgical Teams: Theoretical and Practical Considerations for Team Consistency", Human Factors and Ergonomics Society, Chicago, IL (Oct 30, 2014)

Parker S, "The Human Factor: Applying Safety Science in Healthcare", Mayo Clinic, Rochester, MN (Sep 16, 2014)

Parker S, "The Human Factor", Yale Health System, Yale Health System, New Haven, CT (Sep 02, 2014)

Parker S, "Teamwork and handoffs in trauma care", Human Factors and Ergonomics Society, San Diego, CA (Oct 02, 2013)

Parker S, "Human Factors and Systems Safety", MCIC Patient Safety Symposium, Orlando, FL (Oct 01, 2013)

Parker S, "TeamSTEPPS Train-the-Trainer", Emergency Department: Mayo Clinic, Emergency Department: Mayo Clinic, (Dec 31, 2008)

Parker S, "Translation from Research into Practice", Quality Management Services Education Session, Mayo Clinic, Mayo Clinic, (Dec 31, 2007)

Parker S, "Science of Human Factors: Translation from Research into Practice", IRB Education Session, Mayo Clinic, (Dec 31, 2007)

Parker S, "18th John W. Kirklin Visiting Professorship", 18th John W. Kirklin Visiting Professorship, Rochester, MN (Oct 18, 2007)

Regional

Kraemer MS; **Parker S,** "Session Title: Introduction to Quality and Safety", Health System Science Block 4 , VTC , Roanoke, VA (Mar 22, 2021)

Parker S, "None of us is as smart as all of us", Pennsylvania Patient Safety Organization, (Jun 30, 2017)

Parker S, "None of us is as smart as all of us: applying human factors and team science to healthcare", Georgetown University, Washington DC (Dec 31, 2015)

Parker S, "Why do patients make mistakes taking their asthma medication?", Georgetown University, Washington DC (Nov 04, 2014)

Parker S, "None of us is smart as all of us: Team coordination and its impact on education", MedStar Health Innovation Day, Washington DC (Oct 08, 2014)

Parker S, "Non Technical Skills training in simulation", Ergonomics Society-Healthcare, Ergonomics Society-Healthcare, Baltimore, MD (Dec 31, 2013)

Parker S, "The Human Factor: Applying Safety Science in Healthcare", St Francis Hospital, Long Island, NY (Dec 31, 2012)

Parker S, "Establishing, Examining & Enhancing Non-Technical Skills in the Operating Theatre", Conference on Quality and Patient Safety, The Mayo Clinic, (Sep 08, 2009)

Parker S, "The Science of What Makes Us Human: Applications for Cardiac Surgery", Conference on Quality and Patient Safety, The Mayo Clinic, (Sep 08, 2009)

State

Parker S, "None of us is as smart as all of us: applying human factors and team science to healthcare", Georgetown University School of Medicine, Washington DC (Jun 09, 2015)

Parker S, "Human Factors and Safety Science Presentation", Virginia Hospital and Healthcare Association, Roanoke, VA (Dec 31, 2014)

Local

Parker S, "Medical Design Club", Virginia Tech Carilion School of Medicine, Roanoke VA (Jul 28, 2020)

Parker S, "Celebrating Diversity and Inclusion", International Women's Day Forum, AECOM, Roanoke VA (Mar 31, 2020)

Parker S, "Simulation and Patient Care", Foundation Board of Directors, Roanoke va (Oct 31, 2019)

Parker S, "Big Hairy Audacious Talks", Carilion Clinic Board Retreat, Hot Springs, VA (May 31, 2019)

Fortuna TJ; **Parker S**, "Teaching in the Simulation Environment", Carilion Clinic Teach Series, Roanoke, VA (May 20, 2019)

Parker S, "TEACH presents: Cognitive Bias", OCPD Health Professions Educator Series, Medical Society of Virginia, Roanoke VA (Nov 26, 2018)

Parker S, "Human Performance in Healthcare", New River Valley Board, Roanoke VA (Oct 31, 2018)

Parker S, "Human Factors and Patient Safety", Carilion Collaboratives, Roanoke va (Jul 31, 2018)

Kennedy L; **Parker S**, "Enhancing patient safety with human factors approaches", Resident's Day, Carilion Roanoke Memorial Hospital, Roanoke, VA (Apr 28, 2017)

Parker S, "Optimizing Individual and team performance in complex healthcare environments", Alpha Omega Alpha, Medical honors society, Roanoke VA (Mar 31, 2017)

Kennedy L; **Parker S**, "Evaluation of biofeedback interface components for the management of acute stress in health care", Research in Progress Series, Virginia Tech Carilion Research Institute, Roanoke, VA (Mar 28, 2017)

Frazier S; **Parker S**, "Feasibility of Assessing Acute Stress in Bedside Nurses Using Wearable Body Metrics", Nursing Research Conference, Carilion Clinic, (Dec 31, 2016)

Parker S, "Introduction to Health Implementation Science", Translational Biology Medicine and Health Graduate Student Recruitment, Translational Biology Medicine and Health Graduate Student Recruitment, Virginia Tech (Nov 04, 2016)

Parker S, "Leadership and Action teams", PSYCH 5114, Virginia Tech, (Nov 02, 2016)

Parker S, "Dissemination and Implementation in Healthcare", HNFE 5204, Virginia Tech, (Nov 01, 2016)

Kennedy L; **Parker S**, "Timing of coping instruction presentation for real-time acute stress management", Virginia Tech Carilion Research Institute Science Retreat, Virginia Tech Carilion Research Institute, Roanoke, VA (Sep 09, 2016)

Parker S, "Identifying funding Resources", Research Series, Carilion Clinic, Roanoke (Mar 08, 2016)

Parker S, "Writing up your research study", Research Series, Carilion Clinic, Roanoke (Jan 12, 2016)

Parker S, "RCA course; Human Factors 101", MedStar Health, Washington DC (Dec 31, 2015)

Parker S, "What is human factors?", Pharmacy Carilion Clinic, (Oct 01, 2015)

Parker S, "Human Factors and Safety Science Presentation", The Rotary Association, Salem VA (Dec 31, 2014)

Parker S, "Team coordination in healthcare", Society for Simulation in Healthcare, (Jan 27, 2014)

Parker S, "Good Design, Bad Design", MedStar Institute for Innovation's Annual Meeting, (Dec 31, 2012)

Parker S, "Captain of the Ship: Understanding Surgeons' Intraoperative Leadership", Brown Bag, George Mason University, (Dec 31, 2012)

Parker S, "Applying Team Science in the ICU", ICU, MedStar Washington Hospital Center, (Dec 31, 2012)

Parker S, "The Human Factor: Applying Safety Science in Healthcare", ICU, MedStar Washington Hospital Center, (Dec 31, 2012)

Parker S, "Practical Applications to Improve Patient Safety", Practical Applications to Improve Patient Safety, St. Paul, MN (Dec 31, 2007)

No Scope Given

Rockwell M; Epling Jr. J; Turner J; Zagarese V; **Parker S**; Chang B, "An Evaluation of Patient Outcomes Associated with Sludge (Administrative Burdens) in Cancer Screening", 2024 NAPCRG Annual Meeting, (Nov 20, 2024)

Parker S, "Examining Teamwork and leadership in the Operating Room. Society of Surgical Ergonomics", Society of Surgical Ergonomics, Virtual

Parker S, "Infection Prevention: Work as Imagined vs Work as Performed. March 30, 2023. National Association of Nephrology Technicians/Technologists", DTX40, Las Vegas (Mar 30, 2023)

Parker S, "Infection Control: Work as Imagined vs. Work as Done.", National Association of Nephrology Technicians/Technologists. Dialysis Tech ConneXions (DTX 2023). ., Las Vegas, NV (Mar 30, 2023)

Parker S; Jesso M; Wolf L; Garrick R; Klinger A; Leigh K, "Systems approach in action: Using the SEIPS model to better understand infection prevention in outpatient hemodialysis", Human Factors and Ergonomics Society in Healthcare, Orlando, FL (Mar 29, 2023)

Parker S, "The Role of Human Factors in Supporting the Implementation of Innovative Practices in Healthcare Settings", HFES, Atlanta, GA (Oct 11, 2022)

Deng S; Kulkarni C; **Parker S**; Barnes LE; Wang T; Hartman-Kenzler J; Safford S; Lau N, "Automating context dependent gaze metrics for evaluation of laparoscopic surgery manual skills",

Deng S; Lau N; Kulkarni C; **Parker S**; Barnes LE; Wang T; Rajamohan S; Hartman-Kenzler J; Safford S, "Assessment of laparoscopic skills of trainees with feedforward gaze behaviors", The 17th Annual Academic Surgical Congress, the Association for Academic Surgery (AAS) and The Society of University Surgeons (SUS), (Feb 01, 2022)

Crisalli L; Collins J; Norbo W; **Parker S**; Plaster E; Wattsman T-A; Safford S, "Anxiety and Adverse Childhood Events Are Associated With Increased Perioperative Pain In Children", AAP National Conference & Exhibition Meeting Abstracts, (Mar 01, 2021)

Al-Balla AS; Pozner C; **Parker S**; Yule S; Dias R, "Development of an Observation-Based Rating Tool to Assess Trauma Team Leadership Skills", Annual Clinical Congress of the American-College-of-Surgeons, ELECTR NETWORK (Oct 01, 2020)

Gracanin D; Knapp RB; Martin TL; **Parker S**, "Smart Virtual Care Centers in the Context of Performance and Privacy", 15th International Conference on Telecommunications (ConTEL), Graz, AUSTRIA (Jan 01, 2019)

Rayo MF; Rayo MF; (Terry) Fairbanks RJ; **Parker S**; Wolf LD; Kennedy R, "Spreading the Word: Improving Outcomes with Human Factors Engineering (When Common Sense Is Not Enough)", (Sep 01, 2018)

Kennedy L; Lau N; Pappada S; **Parker S**, "Selecting, evaluating, and translating psychophysiological measures into clinical settings: From lab to practice", (Jun 01, 2018)

Gleason JL; **Parker S**, "Human Factors: The Link to Building Safer and Better Healthcare", (Feb 01, 2018)

Kennedy L; **Parker S**, "Making MATB-II medical: Pilot testing results to determine a novel labbased, stress-inducing task", (May 15, 2017)

Presentation (not at a conference)

National

Parker S, "Human Error and Safety; University of Michigan Human Factors Engineering Short Course, Ann Arbor, MI", Ann Arbor, Michigan (Jul 28, 2023)

Ge S; **Parker S**; Gardezi M; Lim S; Hall R, "The Center for the Future of Work Places and Practices (CFWPP)", ICAT Playdate, Virginia Tech (Jan 27, 2023)

State

Parker S; Nunziato, MD, MS, IBCLC, FACOG J, "Implementation Science", (Jul 18, 2023)

Local

Parker S, "Human Factors and Implementation Science: Examining implementation of teamwork and leadership in the cardiovascular operating room", Baltimore, MD (Apr 06, 2023)

Karp N; Morrow C; **Parker S**, "Health Systems Science: What is it and Why is it Important in Medical Education?", (Feb 22, 2021)

Parker S, "None of us is smart as all of us: Applying human factors and team science to Health Care", Surgical Grand Rounds, Carilion Clinic, Roanoke, VA (Sep 13, 2017)

No Scope Given

Parker S, "Human Factors and Roles for Clinical Innovators: Examining implementation of teamwork and leadership. Mentorship Matters Series", Carilion Clinic, Roanoke, VA (Apr 25, 2023)

Parker S, "Reunion Weekend for Virginia Tech, Women in Medicine, Women in Science, Women in Leadership", Virginia Tech, Reunion Weekend, Virginia Tech, Blacksburg, Virginia (Jun 11, 2022)

Parker S, "Opioid Expert Panel", BEAM Diagnostics, (Jun 08, 2022)

Poster

International

Parker S; Zagarese V; Keller S, "Experienced and expressed tensions in the operating room: Are all team members on the same emotional page?", InGroup Conference, Lisbon, Portugal (Jul 31, 2019)

vari RC; **Parker S**; Johnson CA, "Integrating a longitudinal systems and safety science thread into a four-year medical school curriculum. ", International Association of Medical Science Educators (IAMSE), Roanoke, VA (Jun 30, 2019)

Whicker SA; Rudd M; **Parker S**, "Fostering the Development of Scholars through Collaborative Learning & Practice", 2019 International Association of Medical Science Educators (IAMSE) Meeting, Roanoke, VA (Jun 09, 2019)

Whicker SA; Rudd M; **Parker S**, "Fostering the Development of Scholars through Collaborative Learning & Practice", Virginia Tech Conference on Higher Education Pedagogy, Blacksburg, VA (Jan 31, 2019)

Parker S, "Leadership and decision making in adaptive action teams: Theory, research and practice", InGroup Annual Meeting, Pittsburgh, PA (Jul 25, 2018)

Kennedy L; **Parker S**, "Biofeedback components evaluated in the lab setting", Behavioural Science in Surgery and Acute Care Settings BSAS Annual Conference, Behavioural Science in Surgery and Acute Care Settings, Zurich, Switzerland (Oct 20, 2017)

Kennedy L; **Parker S**, "Timing of coping instruction presentation during acute stress", Association for Applied Psychophysiology and Biofeedback Annual Conference, Association for Applied Psychophysiology and Biofeedback, Chicago, IL (Mar 17, 2017)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress", Global Brain Health and Performance Summit, (May 31, 2016)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress", International Symposium on Human Factors and Ergonomics in Health Care, Human Factors and Ergonomics Society, San Diego, CA (Apr 15, 2016)

Parker S, "The Challenges of Conducting Ethnographic Studies in Healthcare Settings", Computer Human Interaction Workshop on HCI Fieldwork in Healthcare—Creating a Graduate Guidebook, Paris, France (Dec 31, 2013)

National

Karp N; Harendt S; Mutcheson R; **Parker S**; Learman L, "We are the Clinical Champions: An Innovative Approach to Integrating Health Systems Science into the Clinical Years", AMA Health Systems Science Summit, American Medical Association, Chicago, Illinois (Dec 05, 2022)

Crisalli L; Collins J; Norbo W; **Parker S**; Plaster E; Wattsman T-A; Safford SD, "Adult anxiety and pediatric trauma are associated with increased perioperative pain reporting for young patients", American Pediatric Surgical Association meeting, Virtual Meeting (May 31, 2020)

Kennedy L; **Parker S**, "Exploration of enhanced healthcare provider performance using sensor technology and physiologically-driven biofeedback", American Association for Thoracic Surgery: Surgical Patient Safety Course, Boston, MA (Jun 30, 2018)

Kennedy L; Pappada S; Lau N; Papadimos T; **Parker S**, "Applications of psychophysiological measures in clinical settings: Studies in simulation, surgery, and the lab", International Symposium on Human Factors and Ergonomics in Health Care, Boston, MA (Mar 31, 2018)

Park J; **Parker S**; Safford SD, "Evaluating factors affecting perceived educational experience between attending and resident physicians in the operating room: does confidence play a role?", Association for Surgical Education, San Diego, CA (Apr 30, 2017)

Park J; **Parker S**; Safford SD, "Surgical trainees' confidence in the OR improves over time with a corresponding increase in responsibility", Southeastern Surgical Congress, Nashville, TN (Feb 28, 2017)

Park J; **Parker S**; Safford SD, "Utilizing eye-tracking technology to understand the importance of confidence on education", Conference on Higher Education Pedagogy (CHEP), (Jan 31, 2017)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress.", International Symposium on Human Factors and Ergonomics in Health Care, San Diego, CA (Dec 31, 2016)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress", Global Brain Health and Performance Summit, The Ohio State University, Columbus, OH (May 12, 2016)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress", Human Factors and Ergonomics in Health Care, (Apr 30, 2016)

Fernandez R; **Parker S**; Ehrmentraut R; Mitchell S, "Danger Will Robinson! Identify High Risk PPE-Related Occupational Activities", Society for Simulation in Healthcare, San Diego, CA (Jan 20, 2016)

Parker S, "Patterns of Excellent Team Coordination in Trauma Resuscitation", Human Factors and Ergonomics Society Healthcare Symposium, Baltimore, MD (Apr 27, 2015)

Regional

Whicker SA; Rudd M; **Parker S**, "Fostering the Development of Health Professions Education Scholars through Collaborative Learning & Practice", Southern Group on Educational Affairs (SGEA), Atlanta, GA (Oct 31, 2020)

Park J; **Parker S**; Safford SD, "Surgical trainees' confidence in the OR improves over time with a corresponding increase in responsibility", 2017 Annual Meeting of the Southeastern Surgical Congress, (Dec 31, 2017)

State

Frazier S; **Parker S**, "Feasibility of Assessing Acute Stress in Bedside Nurses Using Wearable Body Metrics", Virginia Nurses Association Fall Conference, (Dec 31, 2016)

Local

Mutcheson R; Grohs J; Karp N; Katz A; Musick D; **Parker S**; Lane H; Norris M; Gonzalo J, "Organizing to Intentionally Assess Medical Student Health Systems Citizenship Using Generalizability Theory", TEACH Education Day, Roanoke, VA (Oct 30, 2023)

Karp N; Harendt S; Mutcheson R; **Parker S**; Learman L, "We are the Clinical Champions: An Innovative Approach to Integrating Health Systems Science into the Clinical Years", TEACH Education Day, Roanoke, Va (Oct 27, 2022)

Rockwell M; Frazier M; Dulaney K; Stein J; **Parker S**; Castleman B; Sunstein C; Epling Jr. J, "'Sludge' in the Delivery of Colorectal Cancer Screening: A Pilot Study", Virginia Tech Cancer Alliance Retreat, (Mar 18, 2022)

Whicker SA; Rudd M; **Parker S**, "TEACH HERS: Fostering the Development of Health Professions Education Scholars through Collaborative Learning and Practice", 2020 Annual TEACH Education Day, Roanoke, VA (Oct 08, 2020)

Whicker SA; Rudd M; **Parker S**, "TEACH HERS", 2018 Annual TEACH Education Day, Roanoke, VA (Oct 31, 2018)

Whicker SA; Rudd M; **Parker S**, "Fostering the Development of Health Professions Education Scholars through Collaborative Learning & Practice", 2018 Carilion Clinic Research Day, Roanoke, VA (Apr 10, 2018)

Castaneda A; Kennedy L; **Parker S**, "Biometrics in healthcare: A feasibility study", Translational Biology, Medicine, and Health Rotation Presentation Symposium, Virginia Tech Carilion Research Institute, Roanoke, VA (Feb 09, 2018)

Park J; Ponnala S; **Parker S**; Lau N; Safford SD, "Utilizing eye-tracking technology to understand the importance of confidence on education", 9th annual Conference on Higher Education Pedagogy, (Dec 31, 2017)

Frazier S; **Parker S**, "Feasibility of Assessing Acute Stress in Bedside Nurses Using Wearable Body Metrics", Carilion Clinic Week of the Nurse Conference, Carilion Clinic, (Dec 31, 2016)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress.", Carilion Clinic/Virginia Tech Carilion School of Medicine/Jefferson College of Health Sciences Research Day, (Dec 31, 2016)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress", Global Brain Health and Performance Summit, Columbus, OH (Dec 31, 2016)

Athamneh L; Lane HA; **Parker S**, "Association of Clerkship's Order and Cumulative Experience Throughout the Calendar Year with Performance and Examination Scores", Carilion Research Day, Roanoke, VA (Dec 31, 2016)

Kennedy L; **Parker S**, "Timing of coping instruction presentation during acute stress", Translational Biology, Medicine, and Health Open House, Virginia Tech, Blacksburg, VA (Nov 04, 2016)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress", Virginia Tech Carilion, (Apr 30, 2016)

Kennedy L; **Parker S**, "Specifying parameters for real-time cognitive feedback during acute stress", Carilion Clinic/Virginia Tech Carilion School of Medicine/Jefferson College of Health Sciences Research Day, Carilion Roanoke Memorial Hospital, Roanoke, VA (Apr 05, 2016)

Parker S; Fernandez R; Su L; Waller M; Patterson M, "Leadership and decision making in adaptive action teams: Theory, research and practice", Pittsburgh, PA (Jul 25, 2015)

Siddiqui I; Izadpanah K; **Parker S**, "Team coordination tool used to identify and define Nonroutine Events (NREs) during trauma resuscitations", Student Research Day, MedStar Health Research Institute, (Jul 29, 2013)

Parker S, "Understanding non-routine events in trauma resuscitation", Student Research Day, MedStar Health Research Institute, (Jul 29, 2013)

No Scope Given

Jacobowitz A; **Parker S**; Price J, "Performance evaluation of an alert system for improved diagnosis and treatment of in-hospital sepsis", Society to Improve Diagnosis in Medicine 2023, (Oct 09, 2023)

Non-scholarly presentation

National

Parker S, "Human Factors and COVID-19: Designing 'new normal' for operations. Human Factors and COVID-19: Lessons Learned", HFES, (May 31, 2020)

State

Fortuna TJ; **Parker S**, "Become a SimStar: Immerse Yourself into the Simulation Experience", (Jul 30, 2018)

Local

Parker S, "Introduction to Simulation and Human Factors", (Aug 04, 2020)

Farrell F; **Parker S**; Nussbaum M, "Setting New Standards of Care Through Clinical Research", (Aug 31, 2018)

Contracts, Grants, and Research

External funding

Collaborative Research: CISE: Large: Immersive Distributed Collaborative Embodied Communication and Data Analysis

Primary Investigators: Gracanin D; Ogle J; Haines C; Lee S; Parker S

User role: Funded by

Project Dates: (Oct 01, 2023 - Sep 30, 2027)

Funder name: National Science Foundation

Amount: \$1,776,934.00

Status: Declined

Operationalizing, Validating and Scaling Health Systems Citizenship Assessment in Undergraduate Medical Education

Primary Investigators: Mutcheson B; Grohs J; Katz A; Karp N; Parker S; Gonzalo J; Musick D

User role: Funded by

Project Dates: (Jul 03, 2023 - Jul 31, 2025)

Funder name: National Board of Medical Examiners Stemmler Research Fund

Amount: \$150,000.00

Status: Active

Measures of Effective Health Systems Citizenship for Medical Students

Primary Investigators: Mutcheson R; Grohs J; Katz A; Karp N; Parker S; Musick D; Gonzalo J

User role: Funded by

Submitted Date: 2023-01-31

Project Dates: (Jul 03, 2023 - Jul 31, 2025)

Funder name: NBME Stemmler Fund

Amount: \$150,000.00

Status: Awarded

Assessment of Health Systems Science in Clinical Environments Groundwork Team

Primary Investigators: Gonzalo J; Karp N; Mutcheson R; Parker S; Ollendorf A; Wesley M

User role: Funded by

Project Dates: (Jun 01, 2023 - May 30, 2025)

Funder name: American Medical Association Foundation

Amount: \$50,000.00

Status: Awarded

cybersecurity aspects of DA/NSF grants

Primary Investigators: Gracanin D; Parker S

User role: Secondary investigator of

Project Dates: (May 10, 2023 - Jan 31, 2024)

Funder name: Commonwealth Cyber Initiative Southwest Virginia Node

Amount: \$10,000.00

Status: Active

FW-HTF-P: Technology as partner for improving the effectiveness of teams of clinicians

Primary Investigators: Parker S; Knapp B; Martin TL
User role: Funded by
Project Dates: (Oct 01, 2022 - Sep 30, 2024)
Funder name: Directorate for Computer & Information Science & Engineering
Amount: \$149,680.00

FW-HTF-P: Technology as partner for improving the effectiveness of teams of clinicians
Primary Investigators: Parker S; Gracanic D; Ishida A; Kelliher A; Knapp R; Martin T
User role: Primary investigator of
Project Dates: (Oct 01, 2022 - Sep 30, 2024)
Funder name: National Science Foundation
Amount: \$149,680.00
Status: Active

Promoting Infection Prevention in Dialysis Facilities
Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Sep 21, 2022 - Sep 20, 2023)
Funder name: American Society of Nephrology
Amount: \$85,990.00
Status: Active

Future of Work at the Human-Technology Frontier: Technology as partner for improving the effectiveness of teams of clinicians
Primary Investigators: Parker S; Martin T
Project Personnel: Ishida A; Knapp RB; Gracanic D; Kelliher A
User role: Funded by
Project Dates: (Sep 01, 2022 - Aug 31, 2023)
Funder name: National Science Foundation
Amount: \$149,680.00
Status: Active

Evaluation of a sepsis prediction model implemented for hospitalized patients
Primary Investigators: Price J; Parker S; Tulk Jesso S; DeLong W
Project Personnel: Jain A
User role: Co-primary investigator of
Submitted Date: 2021-12-17
Project Dates: (Jan 01, 2022 - Dec 31, 2024)
Status: Non-Sponsored/Active

Implementation of low cost solutions to help facilitate linkage to care for persons with Hepatitis C
Primary Investigators: Rubio M; Morrow CB; Gomez M; Parker S
User role: Co-primary investigator of
Submitted Date: 2021-08-30
Project Dates: (Jul 01, 2021 - Jan 10, 2023)
Funder name: iTHRIV
Status: Funded/Active

The University of Virginia Kidney Technology Development Research Education Program (VA K-

TUTOR)

Primary Investigators: Parker S
 User role: Primary investigator of
 Project Dates: (Apr 01, 2021 - Jan 31, 2024)
 Funder name: University of Virginia
 Amount: \$25,926.00
 Status: Active

Promoting Infection Prevention in Dialysis Facilities

Primary Investigators: Parker S
 User role: Primary investigator of
 Project Dates: (Sep 21, 2020 - Sep 20, 2022)
 Funder name: American Society of Nephrology
 Amount: \$108,375.00
 Status: Inactive

Future of Medical Workspaces

Primary Investigators: Martin T; Parker S; Ishida A; Gracanin D; Haley V; Knapp RB
 User role: Funded by
 Project Dates: (Jan 01, 2020 - Aug 31, 2020)
 Funder name: Steelcase
 Amount: \$75,000.00
 Status: Complete

Development of a Model for the Simulation of and Participant Performance Evaluation in Opioid
Overdose Response and Naloxone Administration

Primary Investigators: Parker S; Mutcherson B; Mierisch C; Horn K
 Project Personnel: Edwards F
 User role: Co-primary investigator of
 Project Dates: (Aug 01, 2019 - Aug 31, 2020)
 Funder name: Center for Translational Research in Health Behaviors
 Amount: \$19,880.00
 Status: closed

Promoting Infection Prevention in Dialysis Facilities

Primary Investigators: Parker S
 User role: Primary investigator of
 Project Dates: (Jul 23, 2019 - Jul 22, 2022)
 Funder name: American Society of Nephrology
 Amount: \$108,737.00
 Status: Inactive

Human Factors in Outpatient Dialysis

Primary Investigators: Parker S
 Project Personnel: Jesso M; Wolf L
 User role: Primary investigator of
 Project Dates: (Jul 15, 2019 - Jul 14, 2020)
 Funder name: Centers for Disease Control
 Amount: \$108,737.00
 Status: Funded/Active

Intelligent Virtual Coach for Self-Training Manual Skills In Laparoscopy

Primary Investigators: Parker S; Safford SD; Lau N

User role: Co-primary investigator of

Project Dates: (Jul 01, 2019 - Jun 30, 2020)

Funder name: iTHRIV

Amount: \$49,955.00

Status: Funded/Active

Intelligent Virtual Coach for Self-Training Manual Skills in Laparoscopy

Primary Investigators: Lau N; Parker S

User role: Secondary investigator of

Project Dates: (Jun 15, 2019 - Jun 14, 2020)

Funder name: University of Virginia

Amount: \$53,034.00

Status: Inactive

Translating Military Simulation-Based Trauma Team Research Into Outcomes: Leading Effective Resuscitations (Leader)

Primary Investigators: Parker S; Fernandez R

User role: Co-primary investigator of

Project Dates: (Jan 01, 2019 - Dec 31, 2020)

Funder name: Department of Defense

Amount: \$35,157.00

Status: Funded/Active

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

Primary Investigators: Parker S

User role: Primary investigator of

Project Dates: (Jan 01, 2019 - Aug 14, 2021)

Funder name: University of Florida

Amount: \$35,156.00

Status: Inactive

Human Factors in Outpatient Dialysis

Primary Investigators: Parker S

Project Personnel: Jesso M; Wolf L

User role: Primary investigator of

Project Dates: (May 10, 2018 - Jul 14, 2019)

Funder name: Centers for Disease Control

Amount: \$173,619.00

Status: Completed

Human Factors Outpatient Dialysis

Primary Investigators: Parker S

User role: Primary investigator of

Project Dates: (May 10, 2018 - Jul 14, 2019)

Funder name: American Society of Nephrology

Amount: \$143,882.00
 Status: Inactive

Parker Carilion Employment Agreement (Operations)
 Primary Investigators: Friedlander M; Parker S
 User role: Secondary investigator of
 Project Dates: (Mar 01, 2018 - Feb 28, 2022)
 Funder name: Carilion Medical Center
 Amount: \$243,391.00
 Status: Inactive

Parker Carilion Employment Agreement
 Primary Investigators: Friedlander M; Parker S
 User role: Secondary investigator of
 Project Dates: (Mar 01, 2018 - Feb 28, 2025)
 Funder name: Carilion Medical Center
 Amount: \$1,902,210.00
 Status: Active

Perioperative anxiety is associated with increased pain in pediatric general surgery
 Primary Investigators: Safford SD
 Project Personnel: Crisalli L; Collins J; Norbo W; Parker S; Plaster E; Wattsman T-A
 User role: Researcher on
 Project Dates: (Jan 01, 2018 - Dec 31, 2023)
 Status: Non-Sponsored/Active

Application of Eye-Tracking to Support Calibration of Learning and Expertise in Laparoscopic Surgery
 Primary Investigators: Parker S; Lau N
 User role: Co-primary investigator of
 Project Dates: (Jun 01, 2017 - May 31, 2018)
 Funder name: Association for Surgical Education
 Amount: \$8,000.00
 Status: Completed

Application of Eye-tracking to Support Calibration of Learning and Expertise in Laparoscopic Surgery
 Primary Investigators: Lau N; Parker S
 User role: Secondary investigator of
 Project Dates: (Jun 01, 2017 - Mar 31, 2019)
 Funder name: Association for Surgical Education Foundation
 Amount: \$25,000.00
 Status: Inactive

Application of Eye-Tracking to Support Calibration of Learning and Expertise in Laparoscopic Surgery
 Primary Investigators: Parker S; Safford SD; Lau N
 User role: Co-primary investigator of
 Project Dates: (Mar 01, 2017 - Dec 28, 2018)

Amount: \$24,751.00
Status: Completed

Medical Student Mentorship Support
Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Jul 26, 2016 - Jun 30, 2025)
Funder name: Various Funding Sources
Amount: \$4,000.00
Status: Active

Preventing Violence Against Emergency Department Healthcare Workers: A Prospective Needs Assessment to Inform Effective Interventions (SN: UW SHIP 2)
Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Jul 15, 2016 - Apr 30, 2018)
Funder name: University of Washington
Amount: \$22,801.00
Status: Inactive

Preventing Violence Against Emergency Department Healthcare workers: A Prospective Needs Assessment to Inform Effective Interventions
Primary Investigators: Parker S; Fernandez R
User role: Co-primary investigator of
Project Dates: (Jul 01, 2016 - Dec 31, 2017)
Funder name: Washington State Department of Labor and Industries
Amount: \$22,801.00
Status: Completed

Using discourse analysis to identify and predict leadership performance in dynamic healthcare teams.
Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Apr 01, 2016 - Sep 30, 2018)
Funder name: Agency for Healthcare Research & Quality
Amount: \$97,719.00
Status: Inactive

Using Discourse Analysis to Identify and Predict Leadership Performance in Dynamic Healthcare Teams
Primary Investigators: Parker S; Foti R; Hauenstein N; Burd R
User role: Primary investigator of
Submitted Date: 2016-10-16
Project Dates: (Apr 01, 2016 - Sep 30, 2018)
Funder name: Agency for Healthcare Research and Quality
Amount: \$97,719.00
Status: Completed

Development of a Patient Transition Vulnerability Assessment Tool: Pulling the signal from the

noise to identify risky system factors that influence performance
Primary Investigators: Parker S; Coleman KE; Donato MA
User role: Primary investigator of
Submitted Date: 2015-12-01
Project Dates: (Mar 01, 2016 - Mar 31, 2017)
Amount: \$22,880.00
Status: Completed

Team familiarity in the Operating Room
Primary Investigators: Parker S; Safford SD
User role: Primary investigator of
Submitted Date: 2015-12-01
Project Dates: (Mar 01, 2016 - Mar 31, 2017)
Amount: \$24,712.00
Status: Completed

Performance Under Stress: Improving Patient Safety Using Real-time Data-Driven Feedback
Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Sep 30, 2015 - Nov 30, 2018)
Funder name: Agency for Healthcare Research & Quality
Amount: \$523,825.00
Status: Inactive

Personal Protective Equipment Training for Health Care Workers Treating Patients with Highly
Contagious Infectious Diseases
Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Aug 10, 2015 - May 01, 2016)
Funder name: University of Washington
Amount: \$15,714.00
Status: Inactive

Teaching Scholars Program
Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Aug 10, 2015 - Oct 31, 2016)
Funder name: MedStar Health Research Institute
Amount: \$23,636.00
Status: Inactive

S. Parker Carilion IPA
Primary Investigators: Parker S
User role: Secondary investigator of
Project Dates: (Aug 10, 2015 - Aug 09, 2018)
Funder name: Carilion Medical Center
Amount: \$198,983.00
Status: Inactive

Leveraging the Informal Social Networks that Exist in Health Care Settings to Improve Patient Safety

Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Aug 01, 2015 - Sep 30, 2016)
Funder name: MedStar Health Research Institute
Amount: \$42,129.00
Status: Inactive

Teaching Scholars

Primary Investigators: Parker S
User role: Primary investigator of
Project Dates: (Aug 01, 2015 - Nov 30, 2016)
Funder name: MedStar Health
Amount: \$23,636.00
Status: Completed

Personal Protective Equipment Training for Health Care Workers Treating Patients with Highly Contagious Infectious Diseases

Primary Investigators: Parker S; Fernandez R
User role: Co-primary investigator of
Project Dates: (Jan 01, 2015 - Jan 31, 2016)
Amount: \$199,993.00
Status: Completed

Performance Under Stress: Improving Patient Safety Using Real Time Data-Driven Feedback

Primary Investigators: Parker S; Safford SD; Dane FC; Musick DW
User role: Primary investigator of
Submitted Date: 2014-01-25
Project Dates: (Sep 30, 2014 - Dec 31, 2018)
Funder name: Agency for Healthcare Research and Quality
Amount: \$749,728.00
Status: Completed

Leveraging the Informal Social Networks that exist in health care settings to improve patient safety

Primary Investigators: Parker S
User role: Primary investigator of
Submitted Date: 2014-02-01
Project Dates: (Aug 01, 2014 - Aug 31, 2016)
Funder name: Robert Wood Johnson Foundation
Amount: \$330,565.00
Status: Completed

Medical Liability and Conflict Resolution

Primary Investigators: Parker S
User role: Co-primary investigator of
Project Dates: (Jan 01, 2013 - Dec 31, 2015)
Funder name: Agency for Healthcare Research and Quality
Amount: \$1,565,243.00

Status: Completed

Understanding and Optimizing Coordination in High-Risk Healthcare Teams

Primary Investigators: Parker S

User role: Primary investigator of

Project Dates: (Jan 01, 2012 - Dec 31, 2015)

Funder name: Agency for Healthcare Research and Quality

Amount: \$100,000.00

Status: Completed

Overseas Research Awards Scheme Surgeons Intraoperative Leadership

Primary Investigators: Parker S

User role: Primary investigator of

Project Dates: (Jan 01, 2008 - Dec 31, 2011)

Amount: \$39,175.73

Status: Completed

Scottish Funding Council Surgeons Intraoperative Leadership

Primary Investigators: Parker S

User role: Primary investigator of

Project Dates: (Jan 01, 2008 - Dec 31, 2011)

Amount: \$79,026.96

Status: Completed

Factors in Opioid Overdose Response Simulation and Evaluation (FORSE)

Primary Investigators: Miersch C; Parker S; Horn K; Mutcherson B

User role: Co-primary investigator of

Project Dates: (No start date - Present)

Status: Funded/Active

Post Doctoral Overseas Scholarship

Primary Investigators: Parker S

User role: Primary investigator of

Project Dates: (No start date - Dec 31, 2014)

Status: Completed

Internal funding

Immersive Projection Audio and Visual Simulation to Study Emergency Department Waiting

Room Care: The Tesseract

Primary Investigators: Price J; Parker S; Upthegrove T

User role: Funded by

Project Dates: (Jan 17, 2024 - Jan 01, 2026)

Funder name: Carilion Clinic Research and Development

Amount: \$39,758.03

Status: Active

Tesseract in Medical Simulation

Primary Investigators: Altizer R; Upthegrove T; Jones N; Parker S

User role: Funded by

Project Dates: (Oct 11, 2023 - Dec 31, 2023)

Funder name: Virginia Tech Institute for Creativity, Arts, and Technology

Amount: \$6,000.00

Human Systems Integration in Healthcare

Primary Investigators: LaConte L; Martin T; Ishida A; Gracanin D; Nottingham Q; Lau N; Tsui K; Topcu T

User role: Primary investigator of

Project Dates: (Jun 16, 2023 - Jun 16, 2024)

Funder name: Office of the Executive Vice President and Provost and Vice President of Research and Innovation

Amount: \$100,000.00

Status: active

Visual ethnography in medical workspaces

Primary Investigators: Ishida A; Parker S; Price J

User role: Funded by

Project Dates: (May 31, 2023 - Aug 31, 2023)

Funder name: Virginia Tech Center for Future Work Places and Practices

Amount: \$2,000.00

Status: Complete

Towards Digital Twins for Healthcare Systems: Efficient Management for Provider Burnout Prevention and Improved Patient Satisfaction

Primary Investigators: Topcu T; Parker S

User role: Funded by

Project Dates: (Mar 16, 2023 - Mar 01, 2024)

Funder name: Virginia Tech Institute for Society, Culture, and Environment

Amount: \$30,000.00

Status: active

Human-Systems Integration in Healthcare

Primary Investigators: Parker S; LaConte L; Martin T; Ishida A; Gracanin, D; Nottingham Q; Lau N; Tsui K; Topcu T

User role: Funded by

Project Dates: (Dec 13, 2022 - Jun 15, 2023)

Funder name: Office of the Executive Vice President and Provost and Vice President of Research and Innovation

Amount: \$48,700.00

Status: Active

Defining, operationalizing and assessing Health Systems Citizenship

Primary Investigators: Karp N; Katz A; Musick D; Lane H; Mutcherson R; Parker S; Gonzalo J

User role: Funded by

Project Dates: (Sep 01, 2022 - Sep 01, 2024)

Funder name: College of Engineering and School of Medicine Seed Grants

Amount: \$12,000.00

Status: Active

Simulated Injury Videos as a Tool to Improve Paramedic Student's Tourniquet Use

Primary Investigators: Parker S

User role: Funded by

Project Dates: (Jan 01, 2022 - Dec 31, 2022)

Funder name: Carilion Clinic

Amount: \$8,063.00

Status: active

Intellectual Property (e.g., copyrights, patents or trademarks)

Consulting

Media Contributions

Carilion Clinic

Topic: youtube. <https://www.youtube.com/watch?v=ljtrkdEzAPM>.

(Dec 31, 2050)

Professional Activity

NBME Working Group on Team Assessment In Medical Education

Institutional scope: Professional

(Apr 01, 2024 – Jun 30, 2024)

Session Chair, Human Factors and Ergonomics Society

Institutional scope: Public

Geographic scope: National

Purpose: Leadership

(Mar 28, 2023 – Mar 28, 2023)

Additional Information: Patient Safety Track

Institute for Creativity, Arts and Technology

Institutional scope: University

(May 01, 2019 – Present)

Additional Information: Senior Fellow

Professional Committees and Service

Virginia Tech Carilion School of Medicine Committees and Service

Department of Basic Science Chair Committee

Committee Role: Member

(Sep 08, 2022 – Dec 08, 2022)

Senior Associate Dean, Medical Education Committee
Committee Role: Member
(May 02, 2022 – Jul 04, 2022)

Faculty Senate
Committee Role: Member
(Aug 01, 2021 – Aug 01, 2022)
Additional Information: Committee Role: Senator.

Health Systems Science Task Force
Committee Role: Member
(Aug 01, 2019 – Jan 31, 2020)
Additional Information: Committee Role: member.

Other - Quality and Safety curriculum development
Committee Role: Other
(Jan 01, 2016 – Dec 31, 2017)
Additional Information: Committee Role: Lead.

Fralin Biomedical Research Institute Committees and Service

New Building design Committee
Committee Role: Member
(Jan 01, 2018 – Dec 31, 2018)

CTRHB Faculty Recruitment
Committee Role: Other
(Jan 01, 2017 – Dec 31, 2018)
Additional Information: Committee Role: member.

Carilion Clinic Departmental and Hospital Committees and Service

CQO search committee
Committee Role: Other
(Jan 01, 2019 – Present)
Additional Information: Committee Role: member.

Carilion Action Plan Evaluation Committee
Committee Role: Member
(Jan 01, 2018 – Present)

Joint Quality Committee
Committee Role: Other
(Jan 01, 2016 – Present)
Additional Information: Committee Role: member.

TEACH Research Committee
Committee Role: Chair
(Jan 01, 2016 – Present)

Virginia Tech Committees and Service

Director of Privacy and Research data security committee
Committee Role: Member
(Aug 01, 2022 – Present)

Department Heads Executive Committee
Committee Role: Member
(Oct 04, 2021 – Present)

Public Access to Research Data Committee for the Commission on Research,
Committee Role: Other
Location: Blacksburg, Virginia
(Feb 01, 2018 – Present)

Professional Committees and Service (External to VTC and Carilion Clinic)

Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine
Committee Role: Other
(Sep 01, 2021 – Present)
Additional Information: Committee Role: External reviewer.

Description: Committee on Reviewing the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE)“Ensuring an Effective Public Health Emergency Medical Countermeasures Enterprise” for the Health and Medicine Division (HMD) of The National Academies of Sciences, Engineering, and Medicine

Frontiers in computer science-special topic Implementing AI applications in healthcare:
Challenges for design, integration, evaluation and sustainability
Committee Role: Other
(Jul 01, 2021 – Present)
Additional Information: Committee Role: guest editor.

Frontiers in Implementation Science
Committee Role: Other
(Jun 01, 2021 – Present)
Additional Information: Committee Role: Review Editor.

National Science Foundation
Committee Role: Reviewer
(May 01, 2020 – Present)
Additional Information: National Science Foundation's SBIR/STTR Phase 1 COVID-19 DCL (NSF 20-065):

Ingroup- Best student paper review panel
Committee Role: Other
(Jan 01, 2019 – Dec 31, 2019)
Additional Information: Committee Role: member.

JMIR Pediatrics and Parenting
Committee Role: Other
(Jan 01, 2019 – Present)
Additional Information: Committee Role: Editorial Review Board.

NIH AHRQ Grant Review Panel
Committee Role: Other
(Jan 01, 2017 – Dec 31, 2017)
Additional Information: Committee Role: member.

Healthy Roanoke Valley
Committee Role: Other
(Jan 01, 2017 – Present)
Additional Information: Committee Role: inactive member.

Education Advisory Board for Georgetown University and MedStar Health
Committee Role: Other
(Jan 01, 2015 – Present)
Additional Information: Committee Role: Committee Member.

Surgical Outcomes Research Group
Committee Role: Other
(Jan 01, 2014 – Dec 31, 2015)
Additional Information: Committee Role: Founding Advisory Board Member.

Journal of Evaluation in Clinical Practice
Committee Role: Other
(Jan 01, 2014 – Present)
Additional Information: Committee Role: Ad Hoc Reviewer.

World Health Organization- Executive Leadership Curriculum Development
Committee Role: Other
(Jan 01, 2014 – Present)
Additional Information: Committee Role: Task force member.

Institutional Review Board- MedStar Health Research Institute
Committee Role: Other
(Jan 01, 2013 – Dec 31, 2015)
Additional Information: Committee Role: IRB 3 member.

Annals of Surgery
Committee Role: Other
(Jan 01, 2013 – Present)
Additional Information: Committee Role: Ad Hoc Reviewer.

Journal of the American College of Surgeons
Committee Role: Other
(Jan 01, 2013 – Present)
Additional Information: Committee Role: Ad Hoc Reviewer.

American Board of Medical Specialties, Maintenance of Certification in Patient Safety Task Force- Society for Thoracic Surgeons
Committee Role: Other
(Jan 01, 2012 – Present)
Additional Information: Committee Role: Role/Function.

Description: Maintenance of Certification in Patient Safety

Event Review Team- MedStar Health
Committee Role: Other

(Jan 01, 2011 – Dec 31, 2015)
Additional Information: Committee Role: Event Reviewer.

QUEST committee- MedStar Health
Committee Role: Other
(Jan 01, 2011 – Dec 31, 2013)
Additional Information: Committee Role: Committee member.

Annals of Emergency Medicine
Committee Role: Other
(Jan 01, 2011 – Present)
Additional Information: Committee Role: Ad Hoc Reviewer.

BMJ Quality and Safety
Committee Role: Other
(Jan 01, 2011 – Present)
Additional Information: Committee Role: Ad Hoc Reviewer.

Human Factors and Ergonomics Society Conference Proceedings
Committee Role: Reviewer
(Jan 01, 2010 – Present)

Safety Advisory Panel- Mayo Clinic
Committee Role: Other
(Jan 01, 2007 – Dec 31, 2008)
Additional Information: Committee Role: Committee member.

Simulation Curriculum Development Committee- Mayo Clinic
Committee Role: Other
(Jan 01, 2006 – Dec 31, 2008)
Additional Information: Committee Role: Committee member.

Simulation Nursing Curriculum Development Committee- Mayo Clinic
Committee Role: Other
(Jan 01, 2006 – Dec 31, 2008)
Additional Information: Committee Role: Committee Member.

Implementation Science
Committee Role: Other
(No start date – Dec 31, 2017)
Additional Information: Committee Role: ad hoc reviewer.

Other Committee Service

Future of Work Institute
Committee Role: Member
(Oct 03, 2022 – Present)

Whole Health Institute
Committee Role: Member
(Aug 01, 2022 – Present)

Community and Public Service

Church council member (Jan 01, 2017 - Dec 31, 2019)
Organization: St Philip Lutheran Church

Case Management Volunteer (Jan 01, 2011 - Dec 31, 2015)
Organization: Miriam's Kitchen

Professional Memberships

Society of Industrial/Organizational Psychology (Jan 01, 2015 - Present)
Membership Type: Member

Society for Simulation in Healthcare (Jan 01, 2014 - Dec 31, 2016)
Membership Type: Member

Human Factors and Ergonomics Society (Jan 01, 2011 - Present)
Membership Type: Member

Human Factors and Ergonomics Society Healthcare (Jan 01, 2007 - Dec 31, 2016)
Membership Type: Member

Mayo Clinic Human Factors in Healthcare Meeting Conference (Jan 01, 2006 - Present)

Human Factors and Ergonomics Society Student (Jan 01, 2005 - Dec 31, 2005)