

## CURRICULUM VITAE

**NAME:** Saif Khairat, PhD, MPH, FAMIA  
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### ADDRESS:

428 Carrington Hall, Chapel Hill, NC 27514

### EDUCATION:

| Degree | Institution & Location   | Dates | Concentration                |
|--------|--|-------|------------------------------|
| M.P.H. | The University of North Carolina at Chapel Hill, Chapel Hill, NC | 2017  | Health Policy and Management |
| Ph.D.  | University of Missouri, Columbia MO                              | 2011  | Health Informatics           |
| M.S.   | University of Missouri, Columbia MO                              | 2007  | Computer Science             |
| B.S.   | University of Missouri, Columbia MO                              | 2005  | Computer Science             |

### PROFESSIONAL EXPERIENCE:

#### ACADEMIC EMPLOYMENT:

| Institution                                     | Position/Rank                   | Dates         |
|---|---------------------------------|---------------|
| The University of North Carolina at Chapel Hill | Associate Professor with Tenure | 2021- Present |
| The University of North Carolina at Chapel Hill | Assistant Professor             | 2015-2021     |
| University of Minnesota                         | Clinical Assistant Professor    | 2012-2014     |
| Harvard Medical School                          | Research Associate              | 2010          |

#### OTHER EMPLOYMENT:

| Institution or Firm   | Position/Rank   | Dates          |
|---|---|----------------|
| Australasian Institute of Digital Health (AIDH)                               | International Digital Health Advisor, Clinical Informatics Fellowship Program | 2022           |
| Eastern Mediterranean Regional Office (EMRO), World Health Organization (WHO) | Digital Health and Innovation Consultant                                      | 2022           |
| Lineberger Comprehensive Cancer Center, UNC                                   | Member  | 2022 – Present |
| Inter-American Development Bank (IADB)  | Telehealth Consultant   | 2020-2021      |
| Cecil G. Sheps Center for Health Services Research, UNC                       | Research Fellow   | 2021 – Present |
| American College for Education  | Informatics Curriculum and Content Developer                                  | 2020           |

|   |   |           |
|---|---|-----------|
| BioMerieux Inc.                                       | Global Affairs Consultant   | 2017      |
| University of Minnesota & University of Michigan      | VistA EHR Deployment Coordinator<br>UP-HI (University Partnership for Health Informatics) | 2013      |
| University of Minnesota                               | Clinical and Translational Science<br>Institute Biomedical Health Informatics (CTSI-BMI)  | 2012-2014 |
| University of Missouri                                | Research Fellow   | 2011      |
| Department of Student Life,<br>University of Missouri | Web Programmer / Developer  | 2007-2010 |
| National Biodiesel Board,<br>Jefferson City, MO       | Data / Statistical Modeling Assistant   | 2007      |
| Vital Incorporated<br>Columbia, MO                    | Software Developer  | 2006      |
| Computer Science Department<br>University of Missouri | Course Instructor   | 2007      |
| Computer Science Department<br>University of Missouri | Teaching Assistant  | 2006-2007 |
| Computer Science Department<br>University of Missouri | Peer Learning Assistant   | 2005      |

### Honors, Awards, and Leadership

| Date      | Honor   |
|-----------|---|
| 2023      | Strategy Execution for Public Leadership<br>Harvard University, Massachusetts, MA   |
| 2022      | AMIA Leadership Award<br>Washington DC  |
| 2021-2022 | Leadership Fundamentals Program<br>Center for Faculty Excellence, UNC Chapel Hill   |
| 2019      | Third Place, Best Paper Award Competition<br>Knowledge and Data Mining Working Group, AMIA. Washington, DC                |
| 2019      | Nominated for Best Student Paper Award<br>17 <sup>th</sup> World Congress of Medical and Health Informatics, Lyon, France |
| 2019      | Fellow of the American Medical Informatics Association (FAMIA). Atlanta, GA   |
| 2017      | Six Sigma & LEAN Certification, The University of North Carolina at Chapel Hill   |
| 2016      | Junior Faculty Development Award  |

|           |   |
|-----------|---|
|           | The University of North Carolina at Chapel Hill   |
| 2012      | Best of the American Medical Informatics Association (AMIA) 2012<br>The Paths Toward Informatics Careers in the Post-HITECH Era |
| 2011      | Informatics Institute (MUII) Research Fellowship<br>Recognized for ICU Clinical Communication Research                          |
| 2010      | Curator's Grant-In-Aid (GIA) Scholarship<br>Recognized for Continued Success in Educational Endeavors                           |
| 2008–2010 | Graduate Assistantship, University of Missouri  |
| 2006–2008 | Teaching Assistantship, University of Missouri<br>Recognized for Outstanding Teaching Evaluations                               |
| 2005      | General Honors Certificate, University of Missouri<br>Recognized for Completing Honors Courses with Excellent GPA               |
| 2004-2005 | Computer Science Dean's List, University of Missouri  |
| 2004-2005 | National Dean's List<br>Recognized for Exceptional Grade Point Average (GPA)  |
| 2004      | National Scholars Honor Society   |
| 2004      | National Society of Collegiate Scholars<br>Recognized for Outstanding Academic Achievement                                      |
| 2003      | Kappa Mu Epsilon<br>Recognized for Academic Distinction   |

## **BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP:**

### **Books and Chapters:**

1. **Khairat, S., & Feldman, S.** (2020). Undergraduate health informatics education. In Berner, E.S.(ed.) *Informatics Education in Healthcare*. Springer International Publisher. XVIII, 344. [http://doi10.1007/978-3-030-53813-2\\_6](http://doi10.1007/978-3-030-53813-2_6). ISBN: 978-3-030-53812-5.
2. **Khairat, S., & Rudrapatna V.** (2014). Building a telemedicine framework to improve the interactions between cancer patients and oncology triage nurses. In: Duffy V.G. (eds) *Digital Human Modeling. Applications in Health, Safety, Ergonomics and Risk Management*. DHM 2014. Lecture Notes in Computer Science, vol 8529. Springer, Cham. [https://doi.org/10.1007/978-3-319-07725-3\\_38](https://doi.org/10.1007/978-3-319-07725-3_38)
3. **Khairat S., & Gong Y.** (2011) Clinical communication: human-computer and human-human interactions. In Jacko, J.A. (ed.) *Human-Computer Interaction. Users and Applications*. HCI 2011.

Lecture Notes in Computer Science, vol 6764, pp. 182-91. Springer, Berlin, Heidelberg.  
[http://doi.org/10.1007/978-3-642-21619-0\\_24](http://doi.org/10.1007/978-3-642-21619-0_24)

4. **Khairat, S.** (2009). *Clinical content tracking system: an efficient request tracking system via a graphical user interface*. VDM Verlag, Saarbrücken, DEU. ISBN: 978-3-639-18530-0.

### **Refereed Journal Publications:**

**(\*data-based; †publication with student; ‡Corresponding/Senior author; ^Structuring Big-Data)**

1. \*†Kadhim, B., **Khairat, S.**, Li, F., Gross, I. T., Nath, B., Hauser, R. G., & Melnick, E. R. (2023). Implementation of Eye-Tracking Technology to Monitor Clinician Fatigue in Routine Clinical Care: A Feasibility Study. *ACI open*, 07(01), e1-e7. <https://doi.org/10.1055/s-0042-1760267>
2. \*‡**Khairat, S.**, Zou, B., & Adler-Milstein, J. (2022). Factors and reasons associated with low COVID-19 vaccine uptake among highly hesitant communities in the US. *American journal of infection control*, 50(3), 262–267. <https://doi.org/10.1016/j.ajic.2021.12.013>.
3. \*Pruitt, Z., Howe, J. L., Krevat, S. A., **Khairat, S.**, & Ratwani, R. M. (2022). Development and pilot evaluation of an electronic health record usability and safety self-assessment tool. *JAMIA open*, 5(3), ooac070. <https://doi.org/10.1093/jamiaopen/ooac070>
4. \*††**Khairat, S.**, Yao, Y., Coleman, C., McDaniel, P., Edson, B., & Shea, C. M. (2022). Changes in Patient Characteristics and Practice Outcomes of a Tele-Urgent Care Clinic Pre- and Post-COVID-19 Telehealth Policy Expansions. *Perspectives in health information management*, 19(Spring), 1k.
5. \*††**Khairat, S.**, Wallace, E., Bohlmann, A., Zebrowski, A., Stabile, K., Yao, Y., Lakdawala, A., Edson, B., & Catlett, T. (2022). Digital Health Experiences of Incarcerated Populations Using Telemedicine in North Carolina Prisons. *Journal of patient experience*, 9, 23743735221092611. <https://doi.org/10.1177/23743735221092611>.
6. \*††**Khairat, S.**, Coleman, C., Ottmar, P., Bice, T., & Carson, S. S. (2022). Evaluation of Physicians' Electronic Health Records Experience Using Actual and Perceived Measures. *Perspectives in health information management*, 19(1), 1k.
7. ‡ Jalilian, L., & **Khairat, S.** (2022). The Next-Generation Electronic Health Record in the ICU: A Focus on User-Technology Interface to Optimize Patient Safety and Quality. *Perspectives in health information management*, 19(1), 1g..
8. \*‡**Khairat, S.**, Zalla, L., Gartland, A., & Seashore, C. (2021). Association Between Proficiency and Efficiency in Electronic Health Records Among Pediatricians at a Major Academic Health System. *Frontiers in digital health*, 3, 689646. <https://doi.org/10.3389/fdgth.2021.689646>.
9. \*Mukhopadhyay, S., Basak, R., **Khairat, S.**, & Carney, T. J. (2021). Revisiting Provider Role in Patient Use of Online Medical Records. *Applied clinical informatics*, 12(5), 1110–1119. <https://doi.org/10.1055/s-0041-1740189>.

10. \*‡**Khairat, S.**, Zalla, L. C., Adler-Milstein, J., & Kistler, C. E. (2021). U.S. Nursing Home Quality Ratings Associated with COVID-19 Cases and Deaths. *Journal of the American Medical Directors Association*, 22(10), 2021–2025.e1. <https://doi.org/10.1016/j.jamda.2021.07.034>
11. \*‡**Khairat, S.**, McDaniel, P., Jansen, M., Francis, T., Edson, B., & Gianforcaro, R. (2021). Analysis of Social Determinants and the Utilization of Pediatric Tele-Urgent Care During the COVID-19 Pandemic: Cross-sectional Study. *JMIR pediatrics and parenting*, 4(3), e25873. <https://doi.org/10.2196/25873>.
12. \*†^‡**Khairat, S.**, Bohlmann, A., Wallace, E., Lakdawala, A., Edson, B. S., Catlett, T. L., & Dorn, S. D. (2021). Implementation and Evaluation of a Telemedicine Program for Specialty Care in North Carolina Correctional Facilities. *JAMA network open*, 4(8), e2121102. <https://doi.org/10.1001/jamanetworkopen.2021.21102>.
13. ‡Vaughn, J., Kamkhood, D., Ford, S., Subramaniam, A. P., **Khairat, S.**, & Shah, N. (2021). An Innovative Undergraduate Interdisciplinary Research Course: Development, Implementation, and Student Perspectives. *Computers, informatics, nursing : CIN*, 39(10), 517–523. <https://doi.org/10.1097/CIN.0000000000000836>.
14. \*†^‡Hamad, J., Fox, A., Kammire, M. S., Hollis, A. N., & **Khairat, S.** (2021). Evaluating the Experiences of New and Existing Teledermatology Patients During the COVID-19 Pandemic: Cross-sectional Survey Study. *JMIR dermatology*, 4(1), e25999. <https://doi.org/10.2196/25999>
15. ^\***Khairat, S.**, Coleman, C., Teal, R., Rezk, S., Rand, V., Bice, T., & Carson, S. S. (2021). Physician experiences of screen-level features in a prominent electronic health record: Design recommendations from a qualitative study. *Health informatics journal*, 27(1), 1460458221997914. <https://doi.org/10.1177/1460458221997914>
16. ‡Griffin, A. C., Xing, Z., Mikles, S. P., Bailey, S., **Khairat, S.**, Arguello, J., Wang, Y., & Chung, A. E. (2021). Information needs and perceptions of chatbots for hypertension medication self-management: a mixed methods study. *JAMIA Open*, 4(2). <https://doi.org/10.1093/jamiaopen/ooab021>
17. Kistler, C. E., Zimmerman, S., & **Khairat, S.** (2021). Health Information Technology Challenges and Innovations in Long-Term Care. *Journal of the American Medical Directors Association*. <https://doi.org/https://doi.org/10.1016/j.jamda.2021.03.017>
18. \*†‡**Khairat, S.**, Metwally, E., Coleman, C., James, E., Eaker, S., & Bice, T. (2021). Association between ICU interruptions and physicians trainees' electronic health records efficiency. *Informatics for health & social care*, 1–10. Advance online publication. <https://doi.org/10.1080/17538157.2021.1885037>
19. ‡McCall, T., Bolton, C. S., 3rd, Carlson, R., & **Khairat, S.** (2021). A systematic review of telehealth interventions for managing anxiety and depression in African American adults. *mHealth*, 7, 31. <https://doi.org/10.21037/mhealth-20-114>

20. \*†‡**Khairat, S.**, Lin, X., Liu, S., Man, Z., Zaman, T., Edson, B., & Gianforcaro, R. (2021). Evaluation of patient experience during virtual and in-person urgent care visits: time and cost analysis. *Journal of Patient Experience*. <https://doi.org/10.1177/2374373520981487>
21. \*‡**McCall, T.**, Ali, M. O., Yu, F., Fontelo, P., & **Khairat, S.** (2021). Development of a Mobile App to Support Self-management of Anxiety and Depression in African American Women: Usability Study. *JMIR formative research*, 5(8), e24393. <https://doi.org/10.2196/24393>
22. \*Sheets, L. R., Wallach, E., **Khairat, S.**, Mutrux, R., Edison, K., & Becevic, M. (2020). Similarities and Differences Between Rural and Urban Telemedicine Utilization. *Perspectives in health information management*, 18(Winter), 1e.
23. \*‡**Khairat, S.**, Pillai, M., Edson, B., & Gianforcaro, R. (2020). Evaluating the telehealth experience of patients with covid-19 symptoms: recommendations on best practices. *Journal of Patient Experience*, 7(5), 665–672. <https://doi.org/10.1177/2374373520952975>.
24. \*Enyioha, C., **Khairat, S.**, & Kistler, C. E. (2020). Adoption of electronic health records by practices of nursing home providers and wi-fi availability in nursing homes. *Journal of the American Medical Directors Association*, S1525-8610(20)30828-8. Advance online publication. <https://doi.org/10.1016/j.jamda.2020.09.028>.
25. †‡**McNeil H.**, & **Khairat S.** (2020). Impact of intensive care unit readmissions on patient outcomes and the evaluation of the national early warning score to prevent readmissions: literature review. *JMIR Perioperative Medicine*, 3(1), e13782. <https://doi.org/10.2196/13782>.
26. \*‡**Khairat, S.**, Coleman, C., Ottmar, P., Jayachander, D. I., Bice, T., & Carson, S. S. (2020). Association of electronic health record use with physician fatigue and efficiency. *JAMA Network Open*, 3(6), e207385. <https://doi.org/10.1001/jamanetworkopen.2020.7385>.
27. \*‡**Khairat, S.**, Xi, L., Liu, S., Shrestha, S., & Austin, C. (2020). Understanding the association between electronic health record satisfaction and the well-being of nurses: survey study. *JMIR Nursing*;3(1):e13996. URL: <https://nursing.jmir.org/2020/1/e13996>. <http://DOI:10.2196/13996>
28. \*†‡**Coleman, C.**, Gotz, D., Eaker, S., James, E., Bice, T., Carson, C., & **Khairat S.** (2020). Analyzing EHR navigation patterns and digital workflows among physicians during ICU pre-rounds. *Health Information Management: Journal of the Health Information Management Association of Australia*, 1833358320920589. Advance online publication. <https://doi.org/10.1177/1833358320920589>
29. \*‡**Khairat, S.**, Meng, C., Xu, Y., Edson, B., & Gianforcaro, R. (2020). Interpreting covid-19 and virtual care trends: cohort study. *JMIR Public Health and Surveillance*, 6(2), e18811. <https://doi.org/10.2196/18811>
30. \*†‡ **McCall, T.**, Schwartz, T. A., & **Khairat, S.** (2020). The acceptability of text messaging to help African American women manage anxiety and depression: cross-sectional survey study. *JMIR Mental Health*, 7(2), e15801. <https://doi.org/10.2196/15801>

31. \***‡**Khairat, S., Tirtanadi, K., Ottmar, P., Sleath, B., & Obeid, J. (2019). Evaluating the perceptions of teleconsent in urban and rural communities. *European Journal for Biomedical Informatics*, 15(2), <https://www.ejbi.org/abstract/evaluating-the-perceptions-of-teleconsent-in-urban-and-rural-communities-5201.html>.
32. \***‡**Khairat, S., Coleman, C., Ottmar, P., Bice, T., Koppel, R., & Carson, S. S. (2019). Physicians' gender and their use of electronic health records: findings from a mixed-methods usability study. *Journal of the American Medical Informatics Association: JAMIA*, 26(12), 1505–1514. <https://doi.org/10.1093/jamia/ocz126>
33. \***‡**Khairat, S., Haithcoat, T., Liu, S., Zaman, T., Edson, B., Gianforcaro, R., & Shyu, C. R. (2019). Advancing health equity and access using telemedicine: a geospatial assessment. *Journal of the American Medical Informatics Association: JAMIA*, 26(8-9), 796–805. <https://doi.org/10.1093/jamia/ocz108>
34. \***‡**Khairat S, Liu S, Zaman T, Edson B, & Gianforcaro R. (2019). Factors determining patients' choice between mobile health and telemedicine: predictive analytics assessment. *JMIR mHealth and uHealth*, 7(6), e13772. <https://doi.org/10.2196/13772>
35. \***‡**Khairat, S., Whitt, S., Craven, C. K., Pak, Y., Shyu, C. R., & Gong, Y. (2019). Investigating the impact of intensive care unit interruptions on patient safety events and electronic health records use: an observational study. *Journal of Patient Safety*, 10.1097/PTS.0000000000000603. Advance online publication. <https://doi.org/10.1097/PTS.0000000000000603>
36. \***‡** Khairat, S., Coleman, C., Newlin, T., Rand, V., Ottmar, P., Bice, T., & Carson, S. S. (2019). A mixed-methods evaluation framework for electronic health records usability studies. *Journal of Biomedical Informatics*, 94, 103175. <https://doi.org/10.1016/j.jbi.2019.103175>
37. \***Khairat, S., & Obeid, J. S.** (2018). Teleconsent - a new modality for informed consenting. *European Journal for Biomedical Informatics*, 14(4), 63–64.
38. ^\***‡**Long, S., Monsen, K. A., Pieczkiewicz, D., Wolfson, J., & **Khairat, S.** (2018). Redesigning an information system that reduces health care accessibility effort and increases user acceptance and satisfaction: a comparative effectiveness study. *Generating Evidence & Methods to improve patient outcomes (EGEMS)* (Wash DC), 6(1), 22. doi:10.5334/egems.240
39. \***Khairat, S.,** Ottmar, P., Sleath, B., Welch, B., Qanungo, S., Nichols, M., & Obeid, J. S. (2018). Facilitating the informed consent process using teleconsent: protocol for a feasibility and efficacy study. *JMIR Research Protocols*, 7(10), e11239. doi:10.2196/11239
40. \*Sandefter, R. H., Westra, B. L., **Khairat, S. S.,** Pieczkiewicz, D. S., & Speedie, S. M. (2018). Assessment of personal health care management and chronic disease prevalence: comparative analysis of demographic, socioeconomic, and health-related variables. *Journal of Medical Internet Research*, 20(10), e276. <https://doi.org/10.2196/jmir.8784>
41. ^\***Ratwani, R. M.,** Savage, E., Will, A., Arnold, R., **Khairat, S.,** Miller, K., Fairbanks, R. J., Hodgkins, M., & Hettinger, A. Z. (2018). A usability and safety analysis of electronic health

records: a multicenter study. *Journal of the American Medical Informatics Association: JAMIA*, 25(9), 1197–1201. <https://doi.org/10.1093/jamia/ocy088>

42. \***Khairat, S. S.**, Dukkipati, A., Lauria, H. A., Bice, T., Travers, D., & Carson, S. S. (2018). The impact of visualization dashboards on quality of care and clinician satisfaction: integrative literature review. *JMIR Human Factors*, 5(2), e22. <http://doi:10.2196/humanfactors.9328>

43. \***Khairat, S.**, Coleman, G. C., Russomagno, S., & Gotz, D. (2018). Assessing the status quo of EHR accessibility, usability, and knowledge dissemination. *eGEMs (Generating Evidence & Methods to Improve Patient Outcomes)*, 6 (1), 9. doi:<http://doi.org/10.5334/egems.228>

44. \***Khairat, S.**, Burke, G., Archambault, H., Schwartz, T., Larson, J., & Ratwani, R. M. (2018). Perceived burden of EHRs on physicians at different stages of their career. *Applied Clinical Informatics*, 9(2), 336-347. <http://doi:10.1055/s-0038-1648222>

45. \***Khairat, S.**, Marc, D., Crosby, W., & Al Sanousi, A. (2018). Reasons for physicians not adopting clinical decision support systems: critical analysis. *JMIR Medical Informatics*, 6(2), e24. <http://doi:10.2196/medinform.8912>

46. \***Long, S.**, Monsen, K., Pieczkiewicz, D., Wolfson, J., & **Khairat, S.** (2017). An evaluation of overcoming barriers to engage consumers in the use of health care information technology. *Journal of Consumer Health on the Internet*, 21(4), 369-388. <http://doi:10.1080/15398285.2017.1361715>

47. \***Long, S.**, Monsen, A. K., Pieczkiewicz, D., Wolfson, J., & **Khairat, S.** (2017). Predicting consumer effort in finding and paying for health care: expert interviews and claims data analysis. *JMIR Medical Informatics*, 5(4), e39. <http://doi:10.2196/medinform.7892>

48. \***Long, J. E.**, **Khairat, S.**, Chmelo, E., & Palmer, M. H. (2018). Mind over bladder: women, aging, and bladder health. *Geriatric Nursing*, 39(2), 230–237. <https://doi.org/10.1016/j.gerinurse.2017.09.003>

49. \***Khairat, S.**, Sandefer, R., Marc, D., & Pyles, L. (2016). A review of biomedical and health informatics education: a workforce training framework. *Journal of Hospital Administration*, 5(5). <http://DOI:10.5430/jha.v5n5p10>

50. \***Hultman, G.**, Marquard, J., Arsoniadis, E., Mink, P., Rizvi, R., Ramer, T., **Khairat, S.**, Fickau, K., & Melton, G. B. (2016). Usability testing of two ambulatory EHR navigators. *Applied Clinical Informatics*, 7(2), 502-515. <http://doi:10.4338/aci-2015-10-ra-0129>

51. \***Rafiei, M.**, Pieczkiewicz, D., **Khairat, S.**, Westra, B. L., & Adam, T. (2014). Systemized nomenclature of medicine clinical terms for the structured expression of perioperative medication management recommendations. *American Journal of Health-System Pharmacy*, 71(23), 2020, 2022, 2024, 2026-2027.

52. \***Khairat, S.**, & Gong, Y. A. (2012). Task analysis of ICU attending physicians during rounds: utilizing clinical informatics. *Journal of Selected Areas in Health Informatics (JSAHI)*, 2(10).

53. \***Khairat, S.**, Craven, C. K., & Gong, Y. (2012). Understanding human-computer interactions in intensive care unit clinical communication. *International Journal of Computational Models and Algorithms in Medicine (IJCMAM)*, 14-31.

54. \***Khairat, S.**, & Gong, Y. (2011). ICU communication representation: clinician-clinician and clinician-computer interactions. *Journal Health & Medical Informatics*. S1. <http://doi.org/10.4172/2157-7420.S1-001>

**Refereed Conference Proceedings (PubMed Indexed):**

1. \* **Khairat, S.**, Zebrowski, A., Kwong, E., Edson, B., & Gianforcaro, R. (2022). Changes in Patient Characteristics in Telehealth Usage During Times of Crisis. *Studies in health technology and informatics*, 294, 905–909. <https://doi.org/10.3233/SHTI220622>. (Nominated Best Paper Award)
2. \*Hamad, J., Fox, A., Kammire, M. S., Hollis, A. N., & **Khairat, S.** (2022). Assessing Patient Satisfaction with Tele dermatology Implementation During the COVID-19 Pandemic. *Studies in health technology and informatics*, 290, 465–468. <https://doi.org/10.3233/SHTI220119>
3. \***Khairat, S.**, Zhang, X., Boyd, M., Edson, B., & Gianforcaro, R. (2022). Using Automated Text Processing to Assess the Patient Experience of an On-Demand Tele-Urgent Care. *Studies in health technology and informatics*, 289, 410–413. <https://doi.org/10.3233/SHTI210945>.
4. \*Griffin, A. C., Xing, Z., **Khairat, S.**, Wang, Y., Bailey, S., Arguello, J., & Chung, A. E. (2021). Conversational Agents for Chronic Disease Self-Management: A Systematic Review. *AMIA ... Annual Symposium proceedings*. *AMIA Symposium, 2020*, 504–513.
5. \*†‡Liu, S., Edson, B., Gianforcaro, B., & **Khairat, S.** (2020). Multivariate analysis of physicians' practicing behaviors in an urgent care telemedicine intervention. *American Medical Informatics Association. Annual Symposium proceedings*, 1139–1148.
6. \***Khairat, S.**, Tirtanadi, K., Ottmar, P., Gudhe, R., & Austin, C.A. (2019). Would geriatric patients accept using a telemedicine platform for post-ICU-discharge follow-up visits? *Studies in Health Technology and Informatics*, 264, 1233–1237. <https://doi.org/10.3233/SHTI190423>.
7. \*†‡McCall, T., Schwartz, T., **Khairat, S.** (2019). Acceptability of telemedicine to help African American women manage anxiety and depression. *Studies in Health Technology and Informatics*, 264, 699–703. <https://doi.org/10.3233/SHTI190313>.
8. \*†‡Liu, S., Zaman, T., Edson, B., Gianforcaro, R., **Khairat, S.** (2019). Analyzing the demographics of virtual care users. *Studies in Health Technology and Informatics*, 264, 1710–1711. <https://doi.org/10.3233/SHTI190609>
9. †‡McCall, T., Bolton, C.S., McCall, R., **Khairat, S.** (2019). The use of culturally-tailored telehealth interventions in managing anxiety and depression in African American adults: a systematic review. *Studies in Health Technology and Informatics*, 264, 1728–1729. <https://doi.org/10.3233/SHTI190618>
10. \***Khairat, S.**, Jayachander, D., Coleman, C., Newlin, T., & Rand, V. (2019). Understanding the impact of clinical training on EHR use optimization. *Studies in Health Technology and Informatics*, 262, 240–243. <https://doi.org/10.3233/SHTI190063>

11. \*†‡Jayachander, D., Coleman, C., Rand, V., Newlin, T., & **Khairat, S.** (2019). Novel eye-tracking methods to evaluate the usability of electronic health records. *Studies in Health Technology and Informatics*, 262, 244–247. <https://doi.org/10.3233/SHTI190064>
12. \*†‡Peticolas, K., **Khairat, S.**, Seashore, C., & Law, J. (2019). Physician-led EHR customization tracking assessments for pediatric patients with Turner Syndrome. *Studies in Health Technology and Informatics*, 262, 276–279. <https://doi.org/10.3233/SHTI190072>
13. \*†‡Zaman, T., Taneja, T., Edson, B., Gianforcaro, R., & **Khairat, S.** (2019). Evaluation of perceived usability and utilization of a virtual care program among adolescents and geriatrics. *Studies In Health Technology and Informatics*, 262, 97–100. <https://doi.org/10.3233/SHTI190026>
14. \*^**Khairat, S.**, Coleman, C., Rand, V., James, E., & Bice, T. (2018). Classifying provider-EHR screen interactions during ICU pre-rounds. *Studies in Health Technology and Informatics*, 251, 265–268.
15. \*†^Sun, D., Sarda, G., Skube, S. J., Blaes, A. H., **Khairat, S.**, Melton, G. B., & Zhang, R. (2017). Phenotyping and visualizing infusion-related reactions for breast cancer patients. *Studies in Health Technology and Informatics*, 245, 599–603.
16. \*†Ammenwerth, E., De Keizer, N., Brender McNair, J., Craven, C. K., Eisenstein, E., Georgiou, A., **Khairat, S.**, Magrabi, F., Nykanen, P., Otero, P., Rigby, M., Scott, P., & Weir, C. (2017). How to teach health it evaluation: recommendations for health it evaluation courses. *Studies in Health Technology and Informatics*, 243, 3–7.
17. \*†^Arsoniadis, E. G., Tambyraja, R., **Khairat, S.**, Jahansouz, C., Scheppmann, D., Kwaan, M. R., . . . Melton, G. B. (2015). Characterizing patient-generated clinical data and associated implications for electronic health records. *Studies in Health Technology and Informatics*, 216, 158–162.
18. \*†^Sandefter, R. H., Westra, B. L., **Khairat, S. S.**, Pieczkiewicz, D. S., & Speedie, S. M. (2015). Determinants of consumer ehealth information seeking behavior. *AMIA Annual Symposium Proceedings. AMIA Symposium*, 1121–1129.
19. \*†‡^Marc, D. T., Zhang, R., Beattie, J., Gatewood, L. C., & **Khairat, S. S.** (2015). Indexing publicly available health data with medical subject headings (mesh): an evaluation of term coverage. *Studies In Health Technology And Informatics*, 216, 529–533.
20. \*†^Sandefter, R. H., **Khairat, S. S.**, Pieczkiewicz, D. S., & Speedie, S. M. (2015). Using publicly available data to characterize consumers' use of email to communicate with healthcare providers. *Studies in Health Technology and Informatics*, 216, 401–405.
21. \*‡**Khairat, S.**, Wijesinghe, N., Wolfson, J., Scott, R., & Simkus, R. (2014). Building a multicenter telehealth network to advance chronic disease management. *Studies in Health Technology and Informatics*, 202, 299–302.
22. \*†‡^Long, S., & **Khairat, S.** (2014). Roadmap for engaging consumers in using health

information technology. *Studies in Health Technology and Informatics*, 202, 177–180.

23. \*†‡Marc, D.T. & **Khairat, S.S.** (2014). Medical subject headings (mesh) for indexing and retrieving open-source healthcare data. *Studies in Health Technology and Informatics*, 202, 157–160.

24. \*†‡**Khairat, S.** & Garcia, C. (2014). Developing an mHealth framework to improve diabetes self-management. *Studies in Health Technology and Informatics*, 205, 533–537.

25. \*†‡Filipi, J. M., & **Khairat, S.** (2013). Tracking and visualizing headache trends on a mobile or desktop website. *Studies in Health Technology and Informatics*, 192, 1199.

26. \*†‡**Khairat, S.**, Craven, C., & Gong, Y. (2012). Representing clinical communication knowledge through database management system integration. *Studies in Health Technology and Informatics*, 180, 1099–1101.

27. \*†‡**Khairat, S.**, & Gong, Y. (2010). Understanding effective clinical communication in medical errors. *Studies in Health Technology and Informatics*, 160(Pt 1), 704–708.

#### **Refereed Conference Proceedings (non-PubMed, \*IEEE Indexed):**

1. \*†‡Hills, Z., & **Khairat, S.** (2014). Tele dermatology: using collaborative technologies to enhance public health awareness. *Collaboration Technologies and Systems (CTS)*. International Conference on pp.423-427, 19-23. <http://doi:10.1109/CTS.2014.6867599>

2. \***Khairat, S.**, & Gong, Y. (2011). Enhancing patient safety through clinical communication knowledge representation. *e-Health Networking Applications and Services (Healthcom)*. 13th Institute of Electrical and Electronics Engineers (IEEE) International Conference. 130–3.

3. \***Khairat, S.**, & Gong, Y. (2010). Knowledge representation in ICU communication. *Proceedings of the 1st American Computing Machinery (ACM) International Health Informatics Symposium*. 1883102: ACM, 718-23.

4. \***Khairat, S.**, & Gong, Y. (2010). Towards an effective clinical communication framework. IEEE Engineering in Medicine and Biology Society (EMBS), 5th Cairo *International Conference on Biomedical Engineering (CIBEC)*. (URL: [http://www.cibec2010.org/papers/5212\\_2348\\_CIBEC.pdf](http://www.cibec2010.org/papers/5212_2348_CIBEC.pdf))

#### **Conference Abstracts:**

1. Phillips, M., Tignanelli, C., **Khairat, S.**, & Chung, A. (2019). Clinical decision support systems in pediatric surgery: a scoping review. Washington, DC. *AMIA Annual Symposium*.

2. Miller, K., Savage, E., Will, A., **Khairat, S.**, Arnold, R., Fairbanks, R., Hodgkins, M., & Hettinger, A., & Ratwani R. (December 2018). Implementation integrity: a multisite analysis of electronic health record usability and safety. *Academy Health 11th Annual Conference on the Science of Dissemination and Implementation*. Washington, DC. Poster Presentation.

3. Rand, V., Coleman, C., Bice, T., & **Khairat, S.** (2018). Novel mixed-methods analysis of ehr-related information overload on provider workflow in the ICU. *Medical Informatics in Europe*.
4. Adwan, J., Monsen, K., El-Fakahany, E., & **Khairat, S.** (2014). Omaha system in Arabic: application to healthcare providers of children with cystic fibrosis. *American Public Health Association*.
5. Long, S., & **Khairat, S.** (2014). A review of overcoming barriers to engaging consumers in the use of healthcare information technology. *Medical Informatics Europe Conference*.
6. Rafiei, M., Pieczkiewicz, D. S. , Westra, B. L., **Khairat, S.**, Shafizadeh, S., & Adam, T. J. (2013). Perioperative medication management decision heuristics: foundational development of a clinical decision support tool. *American Medical Informatics Association Annual Symposium*.
7. **Khairat, S.**, & Garcia, C. (2012). Introducing a wireless mobile technology to improve diabetes care outcomes among specific minority group. *iProceedings Medicine 2.0*. 170-171.
8. **Khairat, S.**, & Gong, Y. (2013). Improving patient safety through analyzing technology-aided devices interruptions. *Medicine 2.0*.
9. **Khairat, S.**, Monsen, K. A., & Timm, J. E. (April 2013). Feasibility of benchmarking population characteristic and services across program in local public health department using standardized data. *2013 Omaha System International Conference*.
10. Filipi, J., & **Khairat, S.** (2013). Tracking and visualizing headache trends on a mobile or desktop website. *MEDINFO 14th World Congress*.
11. Marc, D., & **Khairat, S.** (2013). Why can't physicians just accept clinical decision support systems? *MEDINFO 14th World Congress*.
12. **Khairat, S.**, & Gong, Y. (2010). A step towards effective clinical communication. *Proceedings of the 2010 AMIA Annual Symposium*. pp.1122.
13. **Khairat, S.** & Gong, Y. (2009). Understanding communication for critical care incidents. *Proceeding of the 2009 AMIA Annual Symposium*.

#### **Appearances in Popular Media:**

How to Use Clinical Decision Support Systems to Improve Patient Outcomes. Health Tech Magazine. <https://healthtechmagazine.net/article/2022/04/how-use-clinical-decision-support-systems-improve-patient-outcomes-eperfcon>. Published April 2022.

New Research: Low Education Levels Strongly Tied to Being Unvaccinated, Major Contributor to Ongoing Hesitancy. The74Million. <https://www.the74million.org/article/new-research-low-education-levels-strongly-tied-to-being-unvaccinated-major-contributor-to-ongoing-hesitancy/>.

Published February 2022.

Low Education Levels Strongly Tied to Being Unvaccinated. Yahoo! News.

<https://news.yahoo.com/low-education-levels-strongly-tied-160100441.html>. Published January 2022.

Investigating the impact of intensive care unit interruptions on patient safety events and electronic health records use: an observational study. AHRQ Patient Safety Net.

<https://psnet.ahrq.gov/resources/resource/33270/Investigating-the-impact-of-intensive-care-unit-interruptions-on-patient-safety-events-and-electronic-health-records-use-an-observational-study?q=khairat>. Published July 2019.

Study finds need for performance standards for EHR usability, safety. American Medical Association (AMA). <https://www.ama-assn.org/study-finds-need-performance-standards-ehr-usability-safety>.

Human factors need to play bigger role in EHR design and implementation, AMA says. Healthcare It News. <https://www.healthcareitnews.com/news/human-factors-need-play-bigger-role-ehr-design-and-implementation-ama-says>. Published: July, 19 2018.

Struggles with EHR create frustration among physicians. Clinical-Innovation.com. <https://www.clinical-innovation.com/topics/ehr-emr/struggles-ehr-create-frustration-among-physicians>. Published: June, 14 2018.

Visualization dashboards for EHR data improve situational awareness, decrease errors. Clinical-Innovation.com. <https://www.clinical-innovation.com/topics/analytics-quality/visualization-dashboards-ehr-data-improve-situational-awareness-decrease>. Published: June, 4 2018.

Boosting user acceptance could improve utilization of clinical decision support tools. Clinical-Innovation.com. <https://www.clinical-innovation.com/topics/analytics-quality/boosting-user-acceptance-could-improve-utilization-clinical-decision>. Published: May, 3 2018.

## **Invited presentations**

### **International**

|      |   |                 |
|------|---|-----------------|
| 2022 | Data Security and Privacy<br>World Health Organization “Africa Telehealth”<br>Conference, Cairo, Egypt  | Invited Speaker |
| 2022 | Improving Physician Electronic Health Record Usability<br>and Perception Through Personalized Coaching<br>European Federation of Medical Informatics Special Topic<br>Conference 2022, Cardiff, Wales | Presentation    |
| 2022 | Changes in Patient Characteristics in Telehealth Usage  | Presentation    |

|      |   |                 |
|------|---|-----------------|
|      | During Times of Crisis  |                 |
|      | Medical Informatics in Europe, Nice, France   |                 |
| 2021 | Assessing Patient Satisfaction with Tele dermatology Implementation during the COVID-19 Pandemic  | Presentation    |
|      | Medinfo World Congress, Virtual   |                 |
| 2021 | Telehealth Workshop: Stakeholder Engagement and Policy Strategies   | Workshop        |
|      | Ministry of Health and Wellbeing, Jamaica   |                 |
| 2021 | Using Automated Text Processing to Assess the Patient Experience of an On-Demand Tele-Urgent Care   | Presentation    |
|      | ICIMTH International Conference, Athens, Greece   |                 |
| 2019 | Would Geriatric Patients Accept Using a Telemedicine Platform for Post ICU-Discharge Follow-up Visits?  | Presentation    |
|      | Medinfo World Congress  |                 |
| 2019 | Eye Tracking to study the Gender-based differences in the Usability of Electronic Health Records  | Presentation    |
|      | ICIMTH International Conference, Athens, Greece   |                 |
| 2019 | Understanding the Impact of Clinical Training on EHR Use Optimization   | Presentation    |
|      | ICIMTH International Conference, Athens, Greece   |                 |
| 2019 | Evaluation of Perceived Usability Acceptability and Utilization of a Virtual Care Program Among Adolescents and Geriatrics  | Presentation    |
|      | ICIMTH International Conference, Athens, Greece   |                 |
| 2018 | Towards a Smart, Data-Driven, Integrated Healthcare System  | Invited Speaker |
|      | American University of Beirut, Lebanon  |                 |
| 2014 | Goals and challenges of Collaboration in Healthcare.  | Panelist        |
|      | International Conference on Collaboration Technologies and Systems (CTS 2014), Minneapolis, MN  |                 |
| 2014 | Tele dermatology: Using Collaborative Technologies to Enhance Public Health Awareness. International Conference on Collaboration Technologies and Systems (CTS 2014), Minneapolis, MN     | Invited Speaker |
| 2014 | Building a Telemedicine Framework to Improve the Interactions between Cancer Patients and Oncology Triage Nurses. 16 <sup>th</sup> International Conference on Human-Computer Interaction | Presentation    |
| 2012 | 24th International Conference of the European Federation  | Presentation    |

|      |   |              |
|------|---|--------------|
|      | for Medical Informatics Quality of Life through Quality of Information. 24th European Medical Informatics Conference - MIE2012              |              |
| 2011 | Clinical Communication: Human-Computer and Human-Human Interactions. Human Computer Interaction International Conference, Orlando, FL       | Presentation |
| 2011 | Enhancing Patient Safety through Clinical Communication Knowledge Representation. IEEE Health Com'11 International Conference, Columbia, MO | Presentation |
| 2010 | Knowledge Representation in ICU Communication. 1st ACM International Health Informatics Symposium, Arlington, VA                            | Presentation |
| 2010 | Understanding Clinical Communication in Medical Errors. International Congress on Medical Informatics, Cape Town, South Africa              | Presentation |

### National

|      |  |                 |
|------|--|-----------------|
| 2022 | Furthering digital literacy (for both staff and patients) Healthcare Business Insights Member Retreat, San Diego, CA<br><b>Evaluation:</b> <ul style="list-style-type: none"> <li>• 75% of attendees rated it “Excellent”</li> <li>• The other 25% attendees rated it “Good”</li> </ul>                                    | Invited Speaker |
| 2022 | Furthering digital literacy (for both staff and patients) Healthcare Business Insights Member Retreat, Boston, MA<br><b>Evaluation:</b> <ul style="list-style-type: none"> <li>• Voted among top 5 sessions</li> <li>• 72% of attendees rated it “Excellent”</li> <li>• The other 14% attendees rated it “Good”</li> </ul> | Invited Speaker |
| 2022 | Optimizing the Provider Experience: EHR Usability Imperfections, Consequences, and Remedies University of California – San Francisco, San Francisco, CA  | Invited Speaker |
| 2022 | Precision Clinical Informatics: Novel Approaches to Tailoring Health Delivery UTMB, Galveston, TX  | Invited Speaker |
| 2021 | Electronic Health Records Usability: Historical pain points and fundamental user-centered design principles HIMSS Minnesota Chapter  | Invited Speaker |
| 2021 | Improving EHR Quality and Safety through Novel Informatics Applications<br><i>UNC – University of Pennsylvania Hillman Scholars Program</i>  | Invited Speaker |

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|------|--|-------------------------|
| 2020 | <p>Addressing Engagement and Burnout Among Clinicians<br/>Healthcare Business Insights Annual Member Retreat</p> <p>Evaluation:</p> <ul style="list-style-type: none"> <li>• <b>Top 4</b> of sessions in terms of rating</li> <li>• It received a Net Promoter Score of 65</li> <li>• 100% said the event materials were relevant and achieved the learning objectives</li> <li>• 96% responded that the learning objectives were met</li> <li>• 96% said the speaker was effective</li> <li>• 73% of attendees were promoters, or rated it a 9 or 10 on a scale of 10 for “Would you recommend this session to a colleague?”</li> </ul> | Closing Keynote Speaker |
| 2020 | <p>From the Bedside to the Homes: Using Informatics to Improve Quality of Care<br/>Health Services Administration Research Series Seminar,<br/>University of Alabama- Birmingham</p>   | Invited Speakers        |
| 2019 | <p>Educational Communities in the Academic Forum: Sharing Knowledge and Promoting Standards<br/>AMIA Annual Symposium</p>  | Panelist                |
| 2019 | <p>Health IT Usability Evaluation Methods – Part 2<br/>Clinical Informatics Group, Mount Sinai Health System, New York City, NY.</p>   | Invited Speaker         |
| 2019 | <p>Health IT Usability Evaluation Methods – Part 1<br/>Clinical Informatics Group, Mount Sinai Health System, New York City, NY.</p>   | Invited Speaker         |
| 2018 | <p>Electronic Health Record- a Vital Clinical Faculty Competency<br/>From Class to Clinical: Who is Leading the Learning? The Importance of Clinical Faculty Competence.<br/>Greensboro, NC</p>  | Invited Speaker         |
| 2017 | <p>What’s after Health IT adoption? Making IT Usable<br/>Mayo Clinic, Rochester, MN</p>  | Invited Speaker         |
| 2016 | <p>Report from the ED-WG Frontline: Biomedical and Health Informatics Baccalaureate (BHIB) Course<br/>AMIA, Washington DC</p>  | Panelist                |
| 2016 | <p>Biomedical and Health Informatics Baccalaureate (BHIB) Course: Work In Progress Report, Columbus, OH</p>  | Panelist                |
| 2016 | <p>Post Adoption Era: Usability Testing of Ambulatory</p>  | Invited Speaker         |

|      |  |                 |
|------|--|-----------------|
|      | EHR  |                 |
|      | MU Informatics Institute, Columbia, MO   |                 |
| 2015 | Perspectives on Informatics at the Baccalaureate Level: Interprofessional Programs and Courses for Healthcare Students and the Role of AMIA, Interactive Panel from the AMIA Education Working Group | Panelist        |
|      | Santa Ana Pueblo, NM   |                 |
| 2015 | ICU Systems: Human-Computer Interaction Fundamentals. Intensive Care Informatics Working Group, AMIA, Washington, D.C.   | Panelist        |
| 2015 | Towards Developing an Undergraduate Interprofessional Biomedical Informatics Course. AMIA Annual Symposium, Washington, D.C.   | Panelist        |
| 2015 | Experiences with use in "academic" EHRs for Education of Informatics Students. AMIA Academic Forum, Ann Arbor, MI  | Presenter       |
| 2014 | Patient Safety: Building an Informatics Culture  | Invited Speaker |
|      | University of Pittsburgh, PA   |                 |
| 2014 | Evaluating a Telehealth Program: A Case Study.   | Invited Speaker |
|      | South Central Telehealth Forum 2014, Little Rock, AR   |                 |
| 2013 | Health Informatics: Healthcare Reform Through People, Technology, and Data. School of Nursing and Health Professions, University of San Francisco  | Invited Speaker |
| 2013 | Medical Informatics and Decision Support Systems in Intensive Care. AMIA, Chicago, IL  | Panelist        |
| 2013 | Health Informatics: A New Science. The Biological Sciences Department, New York City College of Technology   | Invited Speaker |
| 2012 | Intensive Care Informatics Working Group Pre-Symposia  | Panelist        |
|      | AMIA, Washington, D.C.   |                 |
| 2011 | Understanding ICU Clinical Communication Using Knowledge Representation. Locations: University of Minnesota, Marshfield Clinic, University of Michigan-Flint, Governors State University             | Invited Speaker |
| 2010 | Understanding Clinical Communication in Medical Errors. Division of Clinical Informatics, Harvard Medical School-Beth Israel Deaconess Medical Center  | Invited Speaker |
| 2010 | A Step towards Effective Clinical Communication.   | Presentation    |
|      | AMIA Symposium, Washington, D.C.   |                 |
| 2009 | Understanding Communication for Critical Care  | Presentation    |

Incidents.

AMIA Symposium, San Francisco, CA

**Regional**

|      |  |                                   |
|------|--|-----------------------------------|
| 2023 | Using Signal Data to Tailor EHR Coaching for Pediatricians<br>Epic® UGM, Greensboro, NC  | Presentation                      |
| 2022 | The Digital Divide<br>Cecil G. Sheps Center for Health Services Research, Chapel Hill, NC  | Invited Speaker                   |
| 2022 | Health Informatics<br>AHEC Greensboro, NC  | Invited Speaker                   |
| 2021 | The Digital Divide<br>Duke-UNC CO-TEACH Program  | Invited Speaker                   |
| 2021 | Research Excellence Through Innovation and Collaboration in the Era of Digital Health<br>Physical Medicine and Rehabilitation, School of Medicine, UNC | Invited Speaker                   |
| 2020 | Career Journey: Past and Current Work<br>NURS 902 Hillman Scholars, School of Nursing UNC  | Guest lecturer                    |
| 2020 | The Digital Divide<br>Duke-UNC CO-TEACH Program  | Invited Speaker                   |
| 2020 | EGYPT: The Cradle of Civilization<br>NURS 320. Culture and Nursing Care, School of Nursing UNC   | Guest Lecturer                    |
| 2020 | NURS 963: Writing for Publication, School of Nursing UNC   | Guest Lecturer                    |
| 2020 | Usability Testing: Validating Stakeholder Needs<br>Center for Life Long Learning, UNC  | Invited Speaker                   |
| 2019 | From the Bedside to the Homes: Applying Informatics Methods to Improve Health Outcomes<br>Wake Forest University                                       | Invited Speaker                   |
| 2019 | Usability: Background, Challenges, and Evaluation Methods<br>Health IT Business Solutions, Duke University   | Invited Lecturer                  |
| 2019 | From the Bedside to the Homes: Applying Data Science Methods to Improve Healthcare<br>Research Support Center, SON, UNC                                | Invited Speaker                   |
| 2018 | Usability: Background, Challenges, and Evaluation Methods<br>Health IT Business Solutions, Duke University   | Invited Lecturer                  |
| 2018 | New and Innovative Work with Epic<br>HealthCare Informatics Informatics, UNC   | Invited Speaker                   |
| 2018 | Evidence Based Practice: Research Supporting Telehealth<br>The Future of Ambulatory Care is Now. Chapel Hill, NC                                       | Invited Speaker<br>(Rating 4.7/5, |

|      |   | n=61)               |
|------|---|---------------------|
| 2018 | Electronic Health Record- a Vital Clinical Faculty Competency Consortium for Clinical Education and Practice, Chapel Hill, NC                       | Invited Speaker     |
| 2017 | Usability: Background, Challenges, and Evaluation Methods Health IT Business Solutions, Duke University   | Invited Lecturer    |
| 2017 | Health informatics systems Executive Masters Programs, School of Public Health, UNC   | Invited Lecturer    |
| 2016 | Usability: Background, Challenges, and Evaluation Methods Health IT Business Solutions, Duke University   | Invited Lecturer    |
| 2016 | EMR Documentation Area L AHEC   | Workshop            |
| 2016 | The Pitfalls of Electronic Documentation Area L AHEC  | Invited Speaker     |
| 2016 | Healthcare Risks and Opportunities Healthcare IT Forum, NC State University   | Invited Speaker     |
| 2013 | Specific Challenges in evaluating the usability of healthcare solutions. World Usability Day Event, University of Minnesota                         | Panelist            |
| 2013 | Health Informatics: Are we on the right path? Investment Forum Group, Minneapolis, MN   | Invited Speaker     |
| 2012 | mHealth: Closing the Gap Between Diabetes Patients in Underserved Populations and Care Providers. Center for Health Equity, University of Minnesota | Invited Speaker     |
| 2012 | ICU: Clinical Communication and Beyond. Methodist Hospital, Minneapolis, MN   | Invited Speaker     |
| 2012 | Contributing factors to ICU Miscommunication. Amplatz Children's Hospital, Minneapolis, MN  | Invited Speaker     |
| 2012 | Essentials of Clinical Medicine (ECM). University of Minnesota Medical School   | Invited Speaker     |
| 2011 | Effective Clinical Communication: Enhancing Patient Safety. Life Sciences Department, University of Missouri, Columbia, MO                          | Poster Presentation |
| 2010 | Understanding Effective Clinical Communication in Medical Errors. Informatics Institute Seminar   | Presentation        |
| 2010 | A step towards Effective Clinical Communication. Life Sciences Department, University Missouri, Columbia, MO  | Poster Presentation |
| 2009 | Understanding Clinical Communication. Health Sciences   | Poster              |

**TEACHING ACTIVITIES:****Courses Taught**

| <b>Course No. (Level)</b> | <b>Title</b>  | <b>Role</b> | <b>Semester &amp; Year</b> | <b># of Credits</b> | <b>Teaching evaluations (Mean#)</b>               | <b>Institution</b>                          |
|---------------------------|---|-------------|----------------------------|---------------------|---|---|
| NURS 870                  | Health Care Informatics   | Instructor  | Fall 2022                  | 3                   | Mean: 4.14<br>Median: 4<br>Students # 14/29 (48%) | University of North Carolina at Chapel Hill |
| NURS 870                  | Health Care Informatics   | Instructor  | Fall 2021                  | 3                   | Mean: 4.16<br>Median: 4<br>Students # 19/35 (55%) | University of North Carolina at Chapel Hill |
| NURS 960                  | Digital Methods in Health Care and Quality Improvement                              | Instructor  | Spring 2021                | 3                   |   | University of North Carolina at Chapel Hill |
| NURS 870                  | Health Care Informatics   | Instructor  | Fall 2020                  | 3                   |   | University of North Carolina at Chapel Hill |
| N730                      | Introduction to clinical Informatics: Data, Information, and Knowledge              | Instructor  | Spring 2020                | 3                   | Mean: 5/5<br>Median: 5/5<br>Students # 2/6        | University of North Carolina at Chapel Hill |
| N879                      | Introduction to clinical Informatics: Data, Information, and Knowledge              | Instructor  | Fall 2019                  | 3                   | Mean: 4.4<br>Students # 6/10                      | University of North Carolina at Chapel Hill |
| N730                      | Introduction to clinical Informatics: Data, Information, and Knowledge              | Instructor  | Spring 2019                | 3                   | Mean: N/A<br>Median: N/A<br>Students #            | University of North Carolina at Chapel Hill |
| N879                      | User-Centered Analysis and Design of Health Care Information Systems and Interfaces | Instructor  | Fall 2018                  | 3                   | Mean: 4.5/5<br>Median: 5<br>Students # 7/10       | University of North Carolina at Chapel Hill |
| NURS 870                  | Health Care Informatics   | Instructor  | Fall 2017                  | 3                   | Mean: 4.5/5<br>Median: 5                          | University of North                         |

| <b>Course No. (Level)</b> | <b>Title</b>   | <b>Role</b>   | <b>Semester &amp; Year</b> | <b># of Credits</b> | <b>Teaching evaluations (Mean#)</b>         | <b>Institution</b>                          |
|---------------------------|--|---------------|----------------------------|---------------------|---|---|
|                           |  |               |                            |                     | Students #<br>12/22                         | Carolina at<br>Chapel Hill                  |
| NURS 730                  | Introduction to clinical Informatics: Data, Information, and Knowledge | Instructor    | Spring 2017                | 3                   | Mean: 3.4<br>Median: 3.3<br>Students #: 4/6 | University of North Carolina at Chapel Hill |
| NURS 969                  | Data Analysis: Analyzing Health Care Systems                           | Co-Instructor | Spring 2017                | 3                   | 3.3/5<br>Median=3<br>Student #: 5/6         | University of North Carolina at Chapel Hill |
| NURS 870                  | Health Care Informatics  | Instructor    | Fall 2016                  | 3                   | Mean: 3.6/5<br>Median: 3.6<br>Student # 20  | University of North Carolina at Chapel Hill |
| NURS 730                  | Introduction to clinical Informatics: Data, Information, and Knowledge | Instructor    | Spring 2016                | 3                   | Mean: 4.7<br>Median: 5<br>Student # 6       | University of North Carolina at Chapel Hill |
| HINF 8406                 | User Interface Design and Usability in Healthcare                      | Instructor    | Spring 2014                | 2                   | N/A   | University of Minnesota                     |
| HINF 5520                 | Clinical Informatics & Patient Safety                                  | Instructor    | Spring 2014                | 2                   | N/A   | University of Minnesota                     |
| HINF 5540                 | Interprofessional health Informatics                                   | Instructor    | Spring & Fall 2013         | 2                   | N/A   | University of Minnesota                     |
| HINF 5520                 | Clinical Informatics and Patient Safety                                | Instructor    | Spring 2013                | 2                   | N/A   | University of Minnesota                     |
| HINF 8446                 | Professional Studies in Health Informatics                             | Instructor    | Fall 2012                  | 2                   | N/A   | University of Minnesota                     |
| HINF 5520                 | Clinical Informatics & Patient Safety                                  | Instructor    | Spring 2012                | 2                   | N/A   | University of Minnesota                     |
| CS 1040                   | Intro to Problem Solving and Programming                               | Instructor    | 2007                       | 3                   | N/A   | University of Missouri                      |

| <b>Course No. (Level)</b> | <b>Title</b>                             | <b>Role</b>                 | <b>Semester &amp; Year</b> | <b># of Credits</b> | <b>Teaching evaluations (Mean#)</b> | <b>Institution</b>     |
|---------------------------|--|-----------------------------|----------------------------|---------------------|-------------------------------------|------------------------|
| CS 1040                   | Intro to Problem Solving and Programming | Graduate Teaching Assistant | Fall 2005 – 2007           | 3                   | N/A                                 | University of Missouri |
| CS 1050                   | Algorithm Design and Programming I       | Graduate Teaching Assistant | Spring 2005                | 3                   | N/A                                 | University of Missouri |
| CS 1040                   | Intro to Problem Solving and Programming | Peer Learning Assistant     | 2004                       | 3                   | N/A                                 | University of Missouri |

### **Student Research Supervision**

#### **PhD /Post-doctoral students (Current)**

| <b>Student</b> | <b>Role (Advisor, Chair or Committee Member)</b> | <b>Graduation Date</b> |
|----------------|--|------------------------|
| Samuel Isaac   | Chair (PhD)                                      | 2025                   |
| Erica Block    | Chair (PhD)                                      | 2024                   |
| Sara Helvey    | Chair (Post-Doc)                                 | 2024                   |
| Vinisha Dsouza | Committee Member (PhD)                           | 2024                   |

#### **PhD /Post-doctoral students (Past)**

| <b>Student</b>    | <b>Role (Chair/ Committee)</b> | <b>Degree</b> | <b>Dissertation title</b>   | <b>Dates</b> | <b>Institution</b>                          |
|-------------------|--------------------------------|---------------|---|--------------|---|
| Jacqueline Vaughn | Advisor                        | Post-Doc      | An Innovative Undergraduate Interdisciplinary Research Course: Development, Implementation, and Student Perspectives                                  | 2021         | University of North Carolina at Chapel Hill |
| Terika Mccall     | Chair                          | PhD           | mHEALTH For Mental Health: Culturally-Tailored Interventions For Managing Anxiety And Depression In African American Women                            | 2020         | University of North Carolina at Chapel Hill |
| Cam Coleman       | Chair                          | Post-Doc      | Behind the Screens: Using Novel Visualization Methods to Analyze EHR Navigation Patterns and Digital Workflows during ICU Pre-Rounds among Physicians | 2019         | University of North Carolina at Chapel Hill |
| Sandy Long        | Chair                          | PhD           | Designing to Increase Usability in Consumer Health Information: Providing Consumers with  | 2017         | University of Minnesota                     |

|                  |           |     |   |      |                         |
|------------------|-----------|-----|---|------|-------------------------|
|                  |           |     | Information about Access and Financial Components of Care   |      |                         |
| Mehrdad Rafiei   | Committee | PhD | A Perioperative Medicine Clinical Decision Support System: Foundation, Design, Development, Evaluation, and the Standards                                   | 2013 | University of Minnesota |
| Sharad Manaktala | Committee | PhD | Patient Driven Clinical Decision Support Tool for Predicting Cardiovascular Complications of Non-Cardiac Surgery - Creation, Implementation, And Evaluation | 2014 | University of Minnesota |

### **MS/DNP Students**

| <b>Student</b>    | <b>Role</b> | <b>Degree</b> | <b>Project title</b>  | <b>Dates</b> |
|-------------------|-------------|---------------|---|--------------|
| Christy Georgeson | Chair       | DNP           | Effective Electronic Health Record Communication Of Diagnostic Test Results | 2023         |
| Cheeti Srilakshmi | Advisor     | PSM           | TBD   | 2023         |
| Sarah Murtuza     | Advisor     | PSM           | TBD   | 2023         |
| Bryan Andregg     | Advisor     | PSM           | TBD   | 2022         |

### **MS/DNP Students (Past)**

| <b>Student</b>     | <b>Role (Chair/Committee)</b> | <b>Degree</b> | <b>Project title</b>  | <b>Dates</b> |
|--------------------|-------------------------------|---------------|---|--------------|
| Rachelle Thomasson | Chair                         | MSN           | Acceptability, Satisfaction, and Barriers in Telehealth Utilization Among the Uninsured Population: Integrative Literature Review and Synthesis | 2021         |
| Ashlyn Zebrowski   | Chair                         | PSM           | ConvaTec Advanced Wound Care – Digital Health Transformation Internship   | 2021         |
| Erin Wallace       | Chair                         | PSM           | Bioinformatics Analysis of Diverticulitis Data  | 2021         |
| Adam Moss          | Chair                         | PSM           | EBSCO Clinical Decisions Internship Report  | 2021         |
| Amber Woodard      | Committee                     | DNP           | Missed Nursing Care and Clinical Decision Support: Can Electronic Nursing Reminders Help to Reduce this Quality and Patient Safety Concern?     | 2020         |
| Rachelle Thomasson | Chair                         | MSN           | Acceptability, Satisfaction, and Barriers in Telehealth Utilization Among the   | 2020         |

|                 |           |     |   |      |
|-----------------|-----------|-----|---|------|
|                 |           |     | Uninsured Population: Integrative Literature Review and Synthesis   |      |
| Roshan John     | Chair     | PSM | Evaluation of Utilization and Outcomes between Phone and Video Urgent Care Visits   | 2020 |
| Muhammad Ali    | Advisor   | PSM | Usability Study for A Mobile Health App to Support Anxiety and Depression in African American Women   | 2020 |
| David Zablocki  | Advisor   | PSM | Telehealth Reimbursement Analysis and Considerations in the Post-COVID-19 Era   | 2020 |
| Heidi McNeil    | Chair     | DNP | Preventing Bounce Backs: ICU Transfers to Medical Units   | 2019 |
| Lauren Hill     | Chair     | DNP | Determining Safe Output Thresholds for Chest Tube Removal Following Sub-Pneumonectomy Lung Resection  | 2019 |
| Elaine James    | Chair     | DNP | The Use of Clinical Data Capture to Improve The Quality of Reporting For Emergency Department Patients Transferred to Facilities Outside of a Healthcare System | 2019 |
| Joanna Long     | Committee | DNP | Mind over bladder: Women, aging, and bladder health   | 2017 |
| Trusha Taneja   | Chair     | MS  | Conducting socio-technical system assessments, Contextual Inquiry (CI) to explore burdens, breakdowns and frustrations for specialist physicians.               | 2020 |
| Josh Brown      | Chair     | MS  | Determining the Clinical Benefit of NGS in Cancer Diagnostics: Liquid Biopsies for Metastatic Castration-Resistant Prostate Cancer                              | 2019 |
| Farrah Hermes   | Chair     | MS  | Using data from a clinical trials to observe gene expression from high salt and low salt diets  | 2019 |
| Halina Krzystek | Chair     | MS  | Building a Clinical Genomics Informatics Pipeline as part of the Precision Medicine Initiative a  | 2019 |
| Madison Ponder  | Chair     | MS  | Product Development and Standardized Patient Rater Reliability  | 2019 |
| Tanzila Zaman   | Chair     | MS  | Understanding the Perceptions of Adolescent and Geriatric Population in   | 2019 |

|                   |                |      |  |      |
|-------------------|----------------|------|--|------|
|                   |                |      | Use of Technology  |      |
| Paige Ottmar      | Chair          | MSIS | Understanding EHR Information Overload using Eye-Tracking  | 2019 |
| Gillian Wedding   | Chair (Honors) | BSN  | Assessing the Association between EHR and Nursing Burnout  | 2019 |
| Peter Fleming     | Chair          | MSN  | Understanding Difficulties in Information Finding in the EHR   | 2019 |
| Amelia Milukas    | Chair          | MSN  | Telemedicine Visit with Pre and Post Liver Transplant Population   | 2019 |
| Cassie Liu        | Chair          | MS   | Analyzing the difference between younger and older users' information seeking behaviors with a telemedicine website                    | 2019 |
| Thomas Newlin     | Chair          | MS   | Simulation-based testing for EHR Usability in the ICU  | 2018 |
| Victoria Rand     | Chair          | MS   | Understanding Information Overload in the EHR  | 2018 |
| Aniesha Dukkupati | Chair          | MSN  | Design of an Intensive Care Unit Visualization Dashboard: An Integrative Literature Review   | 2017 |
| Zoi Hills         | Chair          | MS   | Increasing Awareness of Telehealth through Public Service Activities   | 2014 |
| Jenny Felipi      | Chair          | MS   | Tracking and Visualizing Headache Trends on a Mobile or Desktop Website  | 2012 |
| Adrian Yardley    | Chair          | MS   | Do Health IT information tools improve communication and collaboration between multiple health care providers on clinical ward rounds? | 2012 |

**GRANTS:**

**Training Grants**

| <b>Role</b>                                  | <b>Title</b>                               | <b>Total Award Amount (FTE if available)</b> | <b>Percent Effort</b> | <b>Agency</b>                 | <b>Dates</b> |
|--|--|--|-----------------------|-------------------------------|--------------|
| <b>Co-I (PI: Soltis-Jarrett, T14HP33207)</b> | ANE - Nurse Practitioner Residency Program | \$6 million                                  | 10%                   | Health Resources and Services | 2020 - 2023  |

|  |                                      |               |     |   |             |
|--|--------------------------------------|---------------|-----|---|-------------|
|  |                                      |               |     | Administration (HRSA)                               |             |
| <b>Co-I (PI: Soltis-Jarrett, T94HP30882)</b> | Advanced Nursing Education Workforce | \$1.1 million | 10% | Health Resources and Services Administration (HRSA) | 2020 - 2023 |

**Research Grants**

**Funded (Under Review)**

| <b>Role</b>  | <b>Title</b>   | <b>Total Award Amount (FTE if available)</b> | <b>Percent Effort</b> | <b>Agency</b>                                     | <b>Dates</b>          |
|--|--|--|-----------------------|---|-----------------------|
| <b>PI (Impact Score: 19)</b><br>(Submission date: 05/22) | Center for Virtual Care Equity and Value (ViVE)  | \$4,890,000                                  | 30%                   | NIH/NCATS   | 1/1/2023 – 12/31/2028 |
| <b>PI</b><br>(Submission date: 02/23)                    | Improving Nurse EHR Usability and Patient Safety through a Tailored Interface Redesign and Support Toolkit (NEHR-Safe) | \$2,000,000                                  | 30%                   | Agency for Healthcare Research and Quality (AHRQ) | 1/1/2024 – 12/31/2029 |

**Funded (On-going)**

| <b>Role</b>                                     | <b>Title</b>  | <b>Total Award Amount (FTE if available)</b> | <b>Percent Effort</b> | <b>Agency</b>                    | <b>Dates</b>      |
|---|---|--|-----------------------|----------------------------------|-------------------|
| <b>PI (Khairat)</b><br><b>(1R01LM013606-01)</b> | Improving Providers' Decision-Making and Reducing Information Overload Using Information Visualization in | 1,348,653                                    | 35%                   | NIH National Library of Medicine | 04/2021 – 01/2025 |

|  |   |             |     |  |                               |
|--|---|-------------|-----|--|-------------------------------|
|  | Electronic Health Records   |             |     |  |                               |
| <b>Co-I (Austin)<br/>(R21-AG080331)</b>        | Development and Assessment of Diagnostic Accuracy of a Telemedicine-Based Delirium Assessment Tool (The Tele-CAM)   | \$ 248,635  | 5%  | NIH National Institute on Aging (NIA)                            | 02/01/2023<br>-<br>01/31/2025 |
| <b>Co-I (McSwain)<br/>(U01-TR002626)</b>       | SPROUT-CTSA Collaborative Telehealth Research Network   | \$708,332   | 10% | NIH National Center for Advancing Translational Sciences (NCATS) | 04/01/2022<br>-<br>03/31/2023 |
| <b>Co-I (PI: Cook)<br/>(A23-0473-002)</b>      | CDC/NCDHHS - HAI Strengthening Project  | \$1,040,782 | 10% | NC DHHS Division of Public Health (DPH)                          | 10/1/2022<br>-<br>7/31/2023   |
| <b>Co-I (PI: Rodriguez)<br/>(R34-DA053887)</b> | A randomized controlled pilot study to examine the impact of a filmed dramatized story intervention (telenovela/soap opera) for HIV prevention in Latinas | \$339,851   | 10% | NIH National Institute on Drug Abuse (NIDA)                      | 08/01/2022<br>-<br>07/31/2024 |
| <b>Site-PI<br/>(PI: Galarraga)</b>             | An EHR-Based Screening Tool to Support Safe Discharges of COVID-19 Patients in the Emergency Department   | \$299,449   | 15% | Agency for Healthcare Research and Quality (AHRQ)                | 9/16/2021<br>-<br>3/23/2023   |
| <b>Co-I<br/>(PI: Ward)</b>                     | Evidence-Focused Rural Telehealth Health  | \$950,000   | 10% | Health Resources and Services                                    | 9/1/2020 –<br>7/31/2024       |

|  |                                       |  |  |                       |  |
|--|---------------------------------------|--|--|-----------------------|--|
|  | Research Center Cooperative Agreement |  |  | Administration (HRSA) |  |
|--|---------------------------------------|--|--|-----------------------|--|

**Funded (Completed)**

| <b>Role</b>                                      | <b>Title</b>  | <b>Total Award Amount<br/>(FTE if available)</b> | <b>Percent Effort</b> | <b>Agency</b>  | <b>Dates</b>          |
|--|---|--|-----------------------|--|-----------------------|
| <b>Site-PI<br/>(PI: Ancker, Kaushal)</b>         | Evaluating the Comparative Effectiveness of Telemedicine in Primary Care: Learning from the COVID-19 Pandemic                   | \$3 million                                      | 15%                   | Patient Centered Outcomes and Research Institute (PCORI) | 9/1/2020 – 10/30/2022 |
| <b>Consultant<br/>(Ratwani, 5R01HS023701-02)</b> | Developing Evidence-Based User Centered Design and Implementation Guidelines to Improve Health Information Technology Usability | \$1,170,7990                                     |                       | Agency for Healthcare Research and Quality (AHRQ)        | 10/1/2019-06/01/2020  |
| <b>Co-PI<br/>(PI: Seashore)</b>                  | Promoting Physician Well Being through Improved Epic Experience   | \$25,000   | N/A                   | School of Medicine, UNC                                  | 3/1/2020 – 3/1/2021   |
| <b>Co-PI<br/>(2KR1382100)</b>                    | The Impact of Telemedicine Expansion for Office-Based Opioid Treatment on Health Disparities in North Carolina                  | \$2,000  | --                    | NC TraCS Institute, UNC                                  | 2021-2022             |

|   |  |             |     |  |                       |
|---|--|-------------|-----|--|-----------------------|
| <b>Site-PI<br/>(Obeid, 1 R21<br/>3R21TR002088-<br/>02S1)</b>  | Investigating teleconsent to improve clinical research access in remote communities                                | \$46,719    | 15% | NCATS  | 8/2018-6/2019         |
| <b>Co-I<br/>(Ahalt,<br/>OT3HL142479)</b>                      | A Collaboration for the NIH Data Commons   | \$1,224,574 | 10% | National Heart, Lung, and Blood Institute (NIH)              | 09/27/2017-06/30/2018 |
| <b>PI</b>   | Teleconsent to Overcome Barriers and Gaps in Clinical Trial Enrollment   | \$2,000     | NA  | NC TraCS Institute   | 2018                  |
| <b>Co-PI<br/>(Site PI)<br/>(Obeid, 1 R21<br/>TR002088-01)</b> | Investigating teleconsent to improve clinical research access in remote communities                                | \$238,125   | 15% | National Center for Advancing Translational Sciences (NCATS) | 08/01/2017-07/31/2019 |
| <b>PI</b>   | Clinical Informatics: Secondary Use of EHR Data to Better Train Future Healthcare Workforce                        | \$6,500     | N/A | Data@Carolina University of North Carolina at Chapel Hill    | 5/1/2016-5/1/2017     |
| <b>PI</b>   | VICUT: A Clinician-Centered Visualization Dashboard to Improve ICU Patient Information Representation and Delivery | \$7,500     | N/A | UNC Office of the Provost                                    | 1/1/2016-12/31/2016   |
| <b>Co-PI (Speedie,<br/>G22RH26185)</b>                        | Telehealth Resource Center Grant Program   | \$975,000   | 20% | Health Resources & Services                                  | 09/01/2013-08/31/2016 |

|   |   |              |     |                                      |                      |
|---|---|--------------|-----|--------------------------------------|----------------------|
|   |   |              |     | Administration (HRSA)                |                      |
| <b>Consultant (Blazar, UL1TR000114)</b> | University of Minnesota Clinical and Translational Science Award (CTSA) | \$42,747,794 | 10% | National Institutes for Health (NIH) | 01/03/2014-2/28/2015 |

**PROFESSIONAL SERVICE:**

**Memberships and Positions Held in National and International Professional Organizations**

| <b>Organization/Activity</b>   | <b>Role</b>                                   | <b>Dates</b> |
|--|---|--------------|
| <i>Education Committee<br/>AMIA</i>  | Chair   | 2020-2024    |
| <i>Baccalaureate Education Committee<br/>AMIA</i>  | Found and Chair                               | 2020- 2022   |
| <i>mHealth and Telemedicine,<br/>AMIA Annual Symposium</i>   | Chair   | 2019         |
| <i>IEEE International Conference on<br/>Bioinformatics and<br/>AMIA Annual Symposium</i>                                 | Scientific Program Committee (SPC) member     | 2019         |
| <i>HIMSS TIGER Scholars Workgroup</i>  | Committee Member                              | 2019-2021    |
| <i>AMIA Academic Forum</i>   | Executive Committee member                    | 2018-2020    |
| <i>AMIA Informatics Summit</i>   | Scientific Program Committee (SPC) member     | 2019         |
| International Symposium on Mathematical and Computational Oncology   | Program Committee member                      | 2019         |
| <i>IEEE Bioinformatics and Biomedicine (BIBM) conference</i>   | Technical Program Committee                   | 2018         |
| <i>Academy Health</i>  | Member  | 2018-2019    |
| <i>AMIA Membership and Outreach Committee</i>  | Member  | 2018-2019    |
| <i>AMIA Education Committee</i>  | Member  | 2018-2019    |
| <i>AMIA Annual Symposium</i>   | Scientific Program Committee (SPC) member     | 2018         |
| <i>HIMSS TIGER Scholars Workgroup</i>  | Program Committee Member                      | 2017-2019    |
| <i>International Conference on Informatics and Assistive Technologies for Health-Care, Medical Support and Wellbeing</i> | Steering Committee                            | 2017         |
| <i>IEEE Bioinformatics and Biomedicine (BIBM) conference</i>   | Technical Program Committee                   | 2017         |
| <i>InSpire Academic Forum Annual Conference</i>  | Scientific Program Committee                  | 2017         |
| <i>AMIA</i>  | ONC Health IT Certification Program: Enhanced | 2016         |

|  |  |              |
|--|--|--------------|
|  | Oversight and Accountability Proposed Rule                                 |              |
| <i>InSpire Academic Forum Annual Conference</i>  | Scientific Program Committee   | 2016         |
| <i>Seventh International Conference on Intelligent Computing and Information Systems, ICICIS'15</i>            | Program Committee  | 2015         |
| <i>Education Working Group; AMIA</i>   | Chair  | 2015-2016    |
| <i>Working Group steering Committee; AMIA</i>  | Member   | 2014-2019    |
| <i>Telehealth &amp; HIT: Partners in Patient Care Great Plains Telehealth Resource &amp; Assistance Center</i> | Program Advisor Committee and Organizing Committee                         | 2014         |
| <i>AMIA</i>  | Treasurer: Evaluation Working Group  | 2014         |
| <i>AMIA</i>  | Clinical Informatics Board Review Course (CIBRC), Item Writing Committee   | 2013-2014    |
| <i>Telehealth Strategies. Great Plains Telehealth Resource &amp; Assistance Center</i>                         | Program Advisor Committee and Organizing Committee                         | 2013         |
| <i>AMIA</i>  | Intensive Care Informatics Working Group                                   | 2012-Present |
| <i>University of Minnesota</i>   | Clinical Translational Science Institute Biomedical Informatics (CTSI-BMI) | 2012-Present |
| <i>AMIA</i>  | National Meetings Committee, Student Working Group                         | 2011         |
| <i>AMIA</i>  | Communications Committee, Student Working Group                            | 2010         |
| <i>AMIA</i>  | Communications Committee, Student Working Group                            | 2009         |
| <i>AMIA</i>  | Nominations Committee, Student Working Group                               | 2009         |

### **Editorial Activities**

| <b>Journal</b>   | <b>Role</b>     | <b>Dates</b> |
|--|-----------------|--------------|
| Health Affairs   | Reviewer        | 2022         |
| Annals of Internal Medicine                                  | Reviewer        | 2022         |
| Journal of American Medicine Association (JAMA) Network Open | Reviewer        | 2021         |
| Connected Health   | Editorial Board | 2021- 2023   |
| Journal of American Medical Informatics Association (JAMIA)  | Reviewer        | 2019         |

|  |                     |                 |
|--|---------------------|-----------------|
| Applied Clinical Informatics (ACI) Journal                         | Associate Editor    | 2017            |
| IEEE Bioinformatics and Biomedicine (BIBM) conference              | Scientific Reviewer | 2017            |
| InSpire Conference 2017  | Scientific Reviewer | 2017            |
| Journal of Medical Internet Research                               | Scientific Reviewer | 2015            |
| BioMed Central   | Scientific Reviewer | 2015            |
| Journal of Applied Clinical Informatics                            | Scientific Reviewer | 2014            |
| American Medical Informatics Association (AMIA).2014               | Scientific Reviewer | 2012; 2014-2015 |
| European Medical Informatics Conference (MIE2014).                 | Scientific Reviewer | 2014            |
| Biomed Central Health Services Research Journal                    | Scientific Reviewer | 2013            |
| Journal for Health and Social Informatics                          | Scientific Reviewer | 2013            |
| Medicine 2.0 World Congress on Social Media, Mobile Apps, Web 2.0. | Scientific Reviewer | 2013            |
| American Journal of Critical Care                                  | Scientific Reviewer | 2012            |
| HealthITXChange.   | Scientific Reviewer | 2012            |
| Medicine 2.0 World Congress on Social Media, Mobile Apps, Web 2.0. | Scientific Reviewer | 2012            |
| Health Informatics Journal   | Scientific Reviewer | 2012            |
| Journal of CIN: Computers, Informatics, Nursing                    | Scientific Reviewer | 2012            |
| ACM International Health Informatics Conference                    | Scientific Reviewer | 2011            |

**Other (Grant Review Activities, Site Visits, Review Panels)**

| <b>Organization/Project</b>  | <b>Role</b>    | <b>Dates</b> |
|--|----------------|--------------|
| Scientific Merit Review Board Subcommittee on Healthcare Informatics, Federal Advisory Committee Act (FACA)<br>Veterans Affairs (VA) | Member         | 2020- 2024   |
| Combat Readiness – Medical Research Program<br><i>U.S. Department of Defense</i>   | Grant Reviewer | 2020         |
| HSR3 - HealthCare Informatics<br><i>U.S. Department of Veterans Affairs</i>  | Grant Reviewer | 2020         |

|   |                   |      |
|---|-------------------|------|
| Health Services Research and Development (HSR&D),<br><i>U.S. Department of Veterans Affairs</i> | Grant<br>Reviewer | 2019 |
| <i>Health Research Board, Ireland</i>   | Grant<br>Reviewer | 2015 |
| <i>Department of Defense, USA</i>   | Grant<br>Reviewer | 2014 |

## UNIVERSITY SERVICE

### University Committees

| <b>Committee</b>  | <b>Role</b>         | <b>Dates</b> |
|---|---------------------|--------------|
| Full Professor Search Committee   | Co-Chair            | 2022-2023    |
| Associate Dean for Research Search<br>Committee                             | Co-Chair            | 2022-2023    |
| Data Science Initiative   | Graduate Curriculum | 2019         |
| Healthcare Informatics Conference   | Planning Committee  | 2018-2020    |
| BBL Advisory Board  | Member              | 2018-2020    |
| PhD Admission Committee<br>CHIP, UNC  | Member              | 2018-2019    |
| Healthcare Systems-APA - UNC  | Member              | 2015-Present |
| Doctoral Admission Committee – Carolina<br>Health Informatics Program - UNC | Member              | 2017-2018    |
| SON IIT Governance Board - UNC  | Member              | 2016-2018    |
| Graduate Executive Committee –<br>University of Minnesota (UMN)             | Member              | 2013-2015    |
| Academic Health Center (AHC)<br>Terminology Taskforce - UMN                 | Member              | 2013-2015    |
| EHR Task Force Committee - UMN  | Member              | 2013-2014    |

## **RESEARCH STATEMENT**

Patient safety and quality of care research expand beyond the traditional focus on healthcare services and performance to encompass other qualitative and quantitative criteria of growing importance, such as medical errors, clinical communication, and human factors. Clinical informatics combines qualitative and quantitative methods with information technology solutions to reach better clinical outcomes and enhanced quality of care. Among other goals, informatics aims to detect and understand patterns and associations in complex clinical tasks by combining a set of multidisciplinary theories and methods.

My research strives to bring us closer to the goal of effectively combining and using health sciences to improve clinical practice and outcomes. My research currently focuses on utilizing mixed-method approaches to enhance Patient-Provider and Provider-Provider communication in the areas of cancer and diabetes. In the past, my research included Intensive Care Unit (ICU) clinical communication and the main cause of medical errors, with a concentration on human-human and human-computer interactions. This includes studying interruptive factors during communication, communication task analysis, computer interaction analysis, and effective feedback. Along with continuing my current research, my future goals include developing new research methodologies, conducting comparative-effectiveness studies, and applying knowledge representation and management approaches.

## **TEACHING STATEMENT**

The opportunities to teach and work with students and develop new educational materials and techniques are my primary reasons for seeking an academic career. My academic background, teaching experiences, and career as a scientific researcher make me well-prepared to teach a variety of introductory Health Informatics & Computer Science courses and more advanced courses such as clinical communication, consumer health informatics, usability, database management systems, and knowledge representation and management. For almost a decade, I have dedicated much of my time to teaching and developing courses and educational materials. As a result, I have acquired extensive teaching experiences at the undergraduate and graduate level as a peer learning assistant, teaching assistant, instructor, and faculty for several courses at the University of Minnesota and the University of Missouri. More importantly, I participated in developing several of these courses, and I have created teaching materials for undergraduate and graduate courses.

## **SERVICE and ENGAGEMENT STATEMENT**

Recognizing the importance of significant contributions beyond the individual's level has been the motive to engage in service activities in the past years. I believe that one should focus on developing their career and the institution and organizations they belong to equally. From that perspective, I have been involved in many service roles since my first faculty appointment at the University of Minnesota and now at the University of North Carolina-Chapel Hill. My involvement varies from departmental committees to improve education, structure, and governance; to leading national committees. My current role as Chair of the Education Working Group at the American Medical Informatics Association (AMIA) is an example of my commitment to enhancing the institutions and organizations I belong to. In that role, I lead national efforts to build an undergraduate Informatics course that can be adopted by any higher education institution in the U.S. and worldwide. Looking into the future, I aim to continue my service activities and stay committed to the Informatics community's overall mission around the globe.