Jennifer Sloane, PhD

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PROFESSIONAL SUMMARY

- Accomplished quantitative methodologist with a background in cognitive psychology and 12 years of research experience, including 2 years in health services research with the Veterans Affairs Administration of Houston and Baylor College of Medicine.
- Versatile mixed methods researcher proficient in leading both quantitative and qualitative projects with expertise in research design, data analysis, and statistics.

TECHNICAL SKILLS

- Programming languages: R (proficient). SQL, Python, JavaScript, MATLAB (familiar).
- Software: LaTeX, Overleaf, Visual Studio Code, Atlas.ti.

RESEARCH EXPERIENCE

Quantitative Methodologist **2024–Present**

Center for Innovations in Quality, Effectiveness and Safety, Houston, Texas

- Lead quantitative methodologist on a research project exploring the benefits and challenges to implementing an alternative 72/80 work schedule for nurses, including analyzing data with interrupted time series analysis and multilevel modeling.
- Converted qualitative process map data to excel spreadsheets to create quantitative datasets and then used R for subsequent data analysis and visualizations.

Health Services Research Postdoctoral Fellow **2022–2024**

Center for Innovations in Quality, Effectiveness and Safety, Houston, Texas

- Lead statistician on a stepped wedge study design exploring the effectiveness of electronic triggers in collaboration with a multidisciplinary team of researchers.
- Used linear mixed-effects models in R and found that an electronic trigger intervention improved follow-up for some sites by up to 27%, resulting in lower risk of medical errors.
- Primary researcher on a qualitative project to better understand how clinicians conceptualize confidence during diagnosis; conducted 20 virtual interviews, coded interview transcripts using Atlas.ti, and analyzed data using inductive content analysis.

Graduate Student **2018–2022**

University of New South Wales, Sydney, Australia

- Designed and programmed (in Python and Javascript) 8 experiments exploring the effects of interruptions and time pressure on decision-making.
- Applied concepts from dissertation work to the field of diagnosis, resulting in a first-author publication.

Graduate Student **2015–2017**

Syracuse University, Syracuse, NY

- Programmed a model of recognition memory in R with several hundreds of simulated participants to better understand how emotional words impact memory.
- Analyzed data using bias and discriminability measures from Signal Detection Theory (a framework to analyze decision-making in the presence of uncertainty by separating signal from noise), linear regression models, linear mixed-effects models, and hierarchical diffusion models.

TEACHING EXPERIENCE

- Presented 8 workshops on "Introduction to R and Programming" to 35 employees at Center for Innovations in Quality, Effectiveness and Safety (2023).
- Instructed and tutored over 400 university students in 5 different psychology and statistics courses (2015-2017).
- Developed a 15-hour cognitive science course for high school students, supplemented by online statistics tutorials and an interactive website (2021).
- Designed and built the R4Beginners website to help individuals learn how to program in R and created video tutorials on using R for website design.

SELECTED PUBLICATIONS

- Zubkoff, L., Zimolzak, A. J., Meyer, A., **Sloane, J.**, Shahid, U., Giardina, T., Memon, S. A., Scott, T., Murphy, D. R., & Singh, H. (2024). Improving Missed Test Results Through a Virtual Breakthrough Series Collaborative: A Stepped Wedge Randomized Clinical Trial. *JAMA Network Open, 7*(10), e2440269–e2440269.
- **Sloane, J.**, Singh, H., Upadhyay, D. K., Korukonda, S., Marinez, A., & Giardina, T. D. (2024). Partnership as a Pathway to Diagnostic Excellence: The Challenges and Successes of Implementing the Safer Dx Learning Lab. *The Joint Commission Journal on Quality and Patient Safety.*
- **Sloane, J.**, Donkin, C., Newell, B. R., Singh, H., & Meyer, A. N. (2023). Managing Interruptions to Improve Diagnostic Decision-Making: Strategies and Recommended Research Agenda. *Journal of General Internal Medicine*, 1-6.
- **Sloane, J.**., Newell, B. R., & Liang, G., Donkin, C. (2022). The Mazing Race: Effects of interruptions and benefits of interruption lags in a novel maze-like decision-making paradigm. *Journal of Experimental Psychology: Applied, 29*(3), 654.
- 11 journal publications, 10 international presentations, and experience as a reviewer for 4 medical journals.

EDUCATION

PhD in Cognitive Psychology **2022**
University of New South Wales, Sydney, Australia
Dissertation: The effects of interruptions on decision-making with applications in medicine

Masters of Science in Experimental Psychology, 4.0 GPA **2017**
Syracuse University, Syracuse, NY

B.A. in Psychology, magna cum laude, 3.9 GPA **2014**
University of Maryland, College Park, MD

HONORS AND AWARDS

- Fellowship in Diagnostic Excellence (Society to Improve Diagnosis in Medicine).
- Scientia PhD Scholarship (University of New South Wales).
- Mark S. Harper Award for Excellence in Psychology (University of Maryland).
- Phi Beta Kappa.

INTERESTS AND HOBBIES

- CrossFit, cross stitch, and playing soccer.
- Traveling and watching the Baltimore Ravens!