

ARRANI SENTHINATHAN
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CURRENT ACADEMIC APPOINTMENT

Assistant Professor of Management (tenure-track) [Aug 2024-present]
Holzschuh College of Business Administration, Niagara University, Vaughan, ON Canada.

EDUCATION

PhD., Institute of Health Policy, Management and Evaluation, University of Toronto. [Sep 2017– Nov 2022]
Thesis Title: Outpatient Antibiotic Prescribing, Dispensing and Susceptibility Testing in a Primary Care Spinal Cord Injury Cohort. Supervisor: Dr. Susan Jaglal.

MSc., Department of Exercise Science, University of Toronto. [Sep 2011 – Nov 2013]
Thesis Title: Physiological and Psychological Stress Markers in Concussed Athletes from Injury to Post-return to Play. Supervisor: Dr. Lynda Mainwaring.

Hons BSc., Department of Arts and Science, University of Toronto. [Sep 2007– May 2011]
Major: Healthcare Ethics & Zoology; Minor: Psychology

CERTIFICATES

Business Fundamentals/Mini-MBA, Graduate Management Consulting Association [April 2022]
Project Management Professional (PMP), Project Management Institute [Jun 2016]

TEACHING AND MENTORSHIP

Research Practicum Co-Supervisor, Leslie Dan Faculty of Pharmacy, University of Toronto
Toronto, ON, Canada. [Feb 2024 – Aug 2024]

- Trained summer medical students conduct chart reviews to identify gaps in electronic medical records documentation practices.

Teaching Assistant/Guest Lecturer, Department of Health & Society, University of Toronto
Toronto, ON, Canada. [Sep 2017 – May 2024]

- Participated in the instruction of several undergraduate level classes including Introduction to Rehabilitation Science, Health Studies, and Infectious Diseases.
- Graded student assignments and conducted tutorials.
- Presented guest lecture on ethical issues in rehabilitation science.

Teaching Assistant (graduate level), Department of Physical Therapy, University of Toronto
Toronto, ON, Canada. [Jun 2018 – Nov 2023]

- Guided students in the Master of Physical Therapy program in two research methodology and data analysis graduate course units to develop their research protocol and analyze their findings.
- Assisted with statistical analysis and development of quantitative data analysis plans, as well as interpretation of findings.
- Emphasized a hands-on approach to healthcare research, blending academic theory with practical application.

Medical Student Research Supervisor, Department of Family and Community Medicine, University of Toronto
Toronto, ON, Canada. [Jun 2022 – Aug 2022]

- Trained summer medical students conduct chart reviews to identify gaps in electronic medical records documentation practices.

Teaching Assistant (graduate level), Department of Exercise Science, University of Toronto
Toronto, ON, Canada. [Sep 2019 – Dec 2019]

- Held office hours and marked statistical assignments and tests.
- Provided guidance to graduate students on techniques to appropriately conduct analyses for their thesis projects using SPSS.

Work-study Student Co-supervisor, Department of Kinesiology, University of Toronto.
Toronto, ON, Canada. [Sep 2011 – Aug 2015]

- Supervised work-study students participate in research activities. Distributed and assigned tasks.
- Trained students to administer and score psychometric scales and questionnaires.

Teaching Assistant/Guest Lecture (undergraduate level), Department of Kinesiology, University of Toronto.
Toronto, ON, Canada. [Sep 2011 – Jun 2015]

- Participated in the instruction of psychosocial development and psychology of injury & rehabilitation.
- Graded student assignments and tests, as well as held office hours and pre-exam review sessions.
- Presented guest lecture of psychological and physiological stress response due to injury.

Research Opportunity Mentor, Department of Kinesiology, University of Toronto
Toronto, ON, Canada. [Sep 2013 – May 2014]

- Assisted with the supervision, development and implementation of an undergraduate research project.
- Create high-level objectives and helped student design study's research protocol.
- Guided student with data analysis using SPSS and interpretation of results.
- Helped student prepare for the Canadian Athletic Therapists Association 2015 National Conference, where the presentation received a research paper award.

RESEARCH EXPERIENCE

Post-Doctoral Fellow, Leslie Dan Faculty of Pharmacy, University of Toronto
Toronto, ON Canada. [Jun 2022 –Aug 2024]

- Formulated strategic plans to interpret and utilize health administrative data from national databases for evidence-based decision-making.
- Developed methods using big data analytics to explore disparities in care among marginalized and vulnerable populations.
- Examined shifts in healthcare utilization, delivery, and access during the COVID-19 pandemic, providing insights into population health assessment and surveillance.
- Supervised academic pursuits of undergraduate and graduate students, echoing a faculty's role in academic leadership.
- Active member of multiple University leadership teams to promote equity, diversity, and inclusion (EDI) in academia.
- Spearheaded research initiatives, leading to the submission of eight manuscripts, as well as multiple conference abstracts, enhancing the public health practice knowledge base.
- Collaborated with internal teams and stakeholders for research implementation, grant submissions and manuscript writing, fostering strong relationships in the healthcare sector.

Post-Doctoral Fellow, Department of Family and Community Medicine, University of Toronto
Toronto, ON Canada. [Jun 2022 –May 2023]

- Leveraged electronic medical records (EMR) data to examine changes in family physician documentation practices due to the rapid uptake of virtual care during the COVID-19 pandemic.
- Evaluated shifts in healthcare delivery during the COVID-19 pandemic, utilizing EMR data to assess changes in vaccination rates, diabetes management, and other critical health indicators
- Developed study designs and statistical analysis plans, as well as conduct preliminary data analysis using SPSS, SAS and Rstudio software.
- Trained graduate and medical students on best practices and techniques to use EMR data for research purposes.

Capstone Advisory Committee Member, Department of Translation Science, University of Toronto
Toronto, ON, Canada. [Sep 2022 – Oct 2023]

- Provided guidance and strategic planning skills to students developing research project and start up company
- Strategically planned and managed launch of startup company, including budget planning, pitch-competition preparation, funding acquisition, and intellectual property application.

Trainee, ICES

Toronto, ON Canada. [Sep 2017 – Aug 2024]

- Investigated outpatient antibiotic prescribing using electronic medical records and health administrative databases, offering valuable data for strategic management for medication prescribing.
- Synthesized findings into three submitted papers and six conference abstracts, contributing to public health intelligence literature.
- Developed and executed research objectives and methods, emphasizing effective public health practices.
- Conducted comprehensive chart reviews, ensuring accurate and actionable health data extraction.
- Analyzed data using SAS software and interpreted results to write manuscripts for publication and present findings at research conferences.

Research Coordinator, Department of Physical Therapy, University of Toronto
Toronto, ON, Canada. [Nov 2019 – Dec 2020]

- Led a modified Delphi panel, providing expert insight for the identification of non-traumatic spinal cord dysfunction parameters in health administrative databases
- Analyzed results to formulate recommendations, guidelines, and manuscripts to streamline research initiatives
- Leveraged Redcap and other survey tools to gather and analyze pertinent data.

Organizational Management and Research Consultant, SAAAC Autism Centre
Toronto, ON, Canada. [Sep 2011– Mar 2019]

- Streamline organizational practises by providing cost- and time-saving strategies.
- Oversaw investigation of barriers to autism spectrum disorder (ASD) screening, diagnosis, and intervention, enriching the understanding of health disparities in public health.
- Designed culturally sensitive educational material, aiding in public health awareness and community engagement.
- Secured funding through successful grant applications, ensuring continuity of essential public health initiatives.

Research Assistant/Project Manager, Antimicrobial Stewardship Program, Sinai Health System
Toronto, ON, Canada. [Sep 2015 – Dec 2017]

- Conducted work-flow analysis to strategically tailor interventions for different primary care clinics to improve patient care, and clinic efficiency.
- Contributed to the development, implementation, and evaluation of an antimicrobial stewardship program to improve strategic management of medical clinics.
- First-line of contact for multiple internal and external stakeholders to ensure success and satisfaction of program.
- Analyzed medical records to evaluate interventions, ensuring timely and appropriate medical responses.
- Assisted in crafting research grants, ethics board applications, manuscripts, and conference abstracts, promoting public health research and education.
- Designed user-friendly eLearning modules for primary care physicians, as well as created monthly audit and feedback reports using EMR data for primary care providers.

Research/Strategy Consultant, Public Health Agency of Canada,
Toronto, ON, Canada [Nov 2016 – Mar 2017]

- Guided strategic health interventions for public health surveillance and assessment.
- Managed and abstracted data ensuring accurate and reliable data sources for public health recommendations.
- Conducted a systematic review and meta-analysis, vital for public health surveillance and assessment, focusing on the prevalence of comorbidities in flaviviral infections.
- Drafted manuscripts, promoting public health intelligence and enhancing evidence-based decision-making processes.

Research Coordinator, Faculty of Kinesiology & Physical Education, University of Toronto,
Toronto, ON, Canada [Jul 2013 – Aug 2015]

- Orchestrated research on psychophysiological markers, providing crucial insights into the health and well-being of varsity athletes post-concussion.
- Administered and analyzed saliva biomarkers and psychometric questionnaires, utilizing them for comprehensive health assessments.
- Wrote conference abstracts, manuscripts, and grants, ensuring the dissemination and continuation of significant public health research initiatives.
- Responsible for supervising and delegating tasks to research assistants, and collaborators.

Exhibited Co-creator, Ontario Science Centre
Toronto, ON, Canada. [Jan 2013 – Apr 2014]

- Pioneered and curated the "Concussions: Mending the Mind & Body" exhibit, translating complex scientific findings into engaging and accessible content for the general public.
- Designed an educational platform that emphasized best practices and guidelines for concussion management, ensuring that attendees left with actionable knowledge on the topic.
- Successfully garnered significant public interest, with the exhibit attracting over 300,000 visitors, highlighting an ability to effectively communicate intricate health topics to diverse audiences.

HONOURS, AWARDS AND FELLOWSHIPS

Team Recognition Award (Teaching), Department of Physical Therapy, University of Toronto [Jul 2024]
Fellowship Award, Canadian Institutes of Health Research (CIHR) [Apr 2023]
Post-doctoral Research Award, 10th National Spinal Cord Conference [Nov 2023]
Team Recognition Award (Teaching), Department of Physical Therapy, University of Toronto [Jul 2023]
Completion Award, IHPME/SGS-University of Toronto [Oct 2021]
Student Scholarship, Toronto Rehabilitation Institute [Sep 2021]
Completion Award, IHPME-University of Toronto [Sep 2021]
Team Recognition Award (Teaching), Department of Physical Therapy, University of Toronto [Jul 2021]
Health Policy, Management and Evaluation Fellowship, University of Toronto [Sep 2017-May 2021]
Ontario Graduate Scholarship (OGS), University of Toronto [Sep 2019 – Sep 2020]
Team Recognition Award (Teaching), Department of Physical Therapy, University of Toronto [Jul 2019]
1st place Poster Award, Technological Advancement in Science, Medicine and Engineering (TASME) [Jul 2016]
Research Paper Award Finalist, 14th European Congress of Sport Psychology [Jul 2015]
1st Place Poster Award, International Association for Dance Medicine and Science [Jun 2014]
2nd Place Poster Award, International Association for Dance Medicine and Science [Jun 2014]
Research Paper Award, Bodies of Knowledge [May 2014]
Exercise Science Fellowship, University Of Toronto [Sep 2011-May 2013]
Scholarship Award, SAAAC Autism Centre [Mar 2013]

SERVICES AND COMMUNITY INVOLVEMENT

Graduate Research in Progress (GRIP) Day Judge, Leslie Dan Faculty of Pharmacy, University of Toronto
Toronto, ON, Canada. [Jul 2024]

- Evaluated medical and graduate students research poster presentations.

Journal Reviewer, Brain Injury
[Sep 2020-current]

Journal Reviewer, Journal of Physical Activity & Health
[Oct 2015-current]

Scholarship and Fellowship Application Reviewer, KITE, University of Toronto
Toronto, ON, Canada. [Jan 2023-Aug 2024]

- Evaluated and ranked graduate scholarship applications. Rankings were used to determine if student advanced to next round for review.

Rehabilitation Sciences Post-Doctoral Committee Member, University of Toronto
Toronto, ON, Canada. [Jun 2022-Aug 2024]

- Serve on steering committee to identify opportunities and needs of current post-doctoral fellows at the University of Toronto in the field of rehabilitation science.

Research Day Judge, Master of Physical Therapy, University of Toronto
Toronto, ON, Canada. [Jul 2023]

- Evaluated medical and graduate students research presentations.

Research Day Judge, Toronto Biomedical Engineering Conference, University of Toronto
Toronto, ON, Canada. [May 2023]

- Evaluated undergraduate and graduate students research poster presentations and ranked them for awards.

Research Day Judge, Master of Physical Therapy, University of Toronto
Toronto, ON, Canada. [Jun 2022]

- Evaluate graduate students' final research poster presentations based on poster content, presentation skills and ability to answer questions.

IHPME Graduate Committee Member, University of Toronto
Toronto, ON, Canada. [Sept 2017-Jun 2022]

- Member of graduate committee dedicated to assisting graduate students involved in health services, policy, management, evaluation, technology and knowledge transition research. , Serve on steering committee to identify opportunities and needs of current post-doctoral fellows at the University of Toronto in the field of rehabilitation science.

Organizer, Mentor and Judge, Pre-University TASME Conference
Toronto, ON, Canada. [Jan 2021-Aug 2021]

- Guided high school students develop and execute research projects in the field of biology, medical and health sciences.
- Judged student posters in the field of physical science and engineering.
- Helped organize the conference and created final agenda.

Conference Organization Committee Member, 18th Annual Eastern Canada Sports and Exercise Psychology Symposium Toronto, ON, Canada. [Jun 2013- May 2014]

- Responsible for keeping records of all financial transactions, and other planning activities for the annual conference.