CURRICULUM VITAE

Leily M. Behbehani, B.S.

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EDUCATION

2017–2021   **B.S. Psychology**
Haverford College **-** Haverford, PA
Thesis Advisors: Laura Been, Ph.D. and Mary Ellen Kelly, Ph.D.
Senior Thesis: *The Effect of Chronic Tamoxifen Treatment on Mood-Related Behaviors in Rats.*

HONORS, GRANTS & SCHOLARSHIPS

2023   **Clinical Research Award,** Feinstein Institutes for Medical Research
2023   **Regional Travel Grant ($400),** Feinstein Institutes for Medical Research
2023   **International Travel Grant ($550),** Discourse Consortium
2021   **National Society of Leadership and Success**, Haverford College
2021   **Scholarship Improvement Prize ($700),** Haverford College

PUBLICATIONS

ORCID ID: 0009-0009-4374-7503

2. Tang, S.X., Hänsel, K., Cong, Y.,Nikzad, A., Mehta, A., Cho, S., Berretta, S., **Behbehani, L.**, Pradhan, S., John, M., Liberman, M., (2023) Latent Factors of Language Disturbance and Relationships to Quantitative Speech Features. Schizophrenia Bulletin. DOI: https://doi.org/10.1101/2022.03.31.22273263

1. Nikzad, A., Cong, Y., Berretta, S., Hänsel, K., Cho, S., Pradhan, S., **Behbehani, L.**, DeSouza, D., Liberman, M., Tang, S.X. (2022) Who Does What to Whom? Graph Representations of Action-Predication in Speech Relate to Psychopathological Dimensions of Psychosis. Schizophrenia. DOI: https://doi.org/10.1038/s41537-022-00263-7

Under Review

2. Tran, I.R., Tang, S.X, Berretta, S., **Behbehani, L.**, & Birnbaum, M.L. (2023). Development of a Novel Social Media and Internet Usage and Engagement Scale (SMILE) for Individuals with Schizophrenia and Psychotic Spectrum Disorders. *Digital Health.*

1. Been, L.E., Halliday, A.R., Blossom, S.M., Roth, G., Domenech, K., Abramenko, P., Pollack, K., **Behbehani, L.M.,** Pascal, G.J., & Kelly, M. (2023) Long-Term Oral Tamoxifen

Administration Decreases Brain-Derived Neurotrophic Factor in the Hippocampus of Female Long-Evans Rats. *Cancer.*

In Preparation

1. **Behbehani, L.M.,** Singh, Z., Berretta, S., Bhola, S., Tang, S.X., Barzilay, R., Linguistic predictors of recent suicide attempts in Major Depressive Disorder and Borderline Personality Disorder.

PRESENTATIONS

Poster Presentations

11. **Behbehani, L.M.,** Singh, Z., Spilka, M.J., Nikzad, A.M., Berretta, S., Bhola, S., Barzilay, R., Tang, S.X. (December, 2023). *Predicting suicide ideation and suicide attempts in clinical psychiatric population with computational speech and language features.* Presented at the Technology in Psychiatry Summit.

10. Tang, S.X., Nikzad, A.H., Spilka, M.J., Cong, Y., **Behbehani, L.M.,** Berretta, S., Kane, J.M., Malhotra, A.K**. (**December, 2023). *Linguistic risk score for schizophrenia: applying a polygenic risk approach to synthesize multivariate features from computational speech and language analysis.* Presented at the 62nd Annual Meeting of the American College of Neuropsychopharmacology.

9. Nikzad, A.H., Cong, Y., Berretta, S., **Behbehani, L.M.,** Pradhan, S., Tang, S.X. (December, 2023). *Disorganization disrupts the core: localizing clinical dimensions of speech and language disturbance within sentence structure.* Presented at the 62nd Annual Meeting of the American College of Neuropsychopharmacology Annual Meeting 2023, Upcoming.

8. **Behbehani, L.M**., Bhola, S., Berretta, S., Tang, S.X. (October, 2023). *Sentiment in the speech of individuals with self-reported suicidality.* Presented at the Feinstein Institutes Scientific Poster Session Series.

7. **Behbehani, L.M**., Bhola, S., Berretta, S., Tang, S.X. (September, 2023) *Sentiment in the speech of individuals with recent suicide attempts.* Presented at the Annual Clinical Research Professionals Poster Session, Zucker School of Medicine.

6. Tang, S.X., Spilka, M., Berretta, S., **Behbehani, L.M.,** Birnbaum, M., Saito, E., Costakis, A., Robin, J., John, M., Liberman, M., Simpson, W., Kane, J. (May, 2023) *Computational Speech and Language Biomarkers for Psychosis Symptoms during Acute Hospitalization.* Presented at the Schizophrenia International Research Society.

5. Spilka, M., Robin, J., Nikzad, A., **Behbehani, L.M.,** Berretta, S., Xu, M., Simpson, W., Tang, S.X. (May, 2023) *Do motor symptoms influence the digital speech assessment of negative symptoms in schizophrenia spectrum disorders?* Presented at the Schizophrenia International Research Society.

4. Tran, I.R., Tang, S.X, Baumel, A., Berretta, S., **Behbehani, L.M.,** & Birnbaum, M.L. (March, 2023). *Development of a Novel Social Media and Internet Usage and Engagement Scale*

(SMILE) for Individuals with Schizophrenia and Psychotic Spectrum Disorders. Presented at the Society for Affective Science Annual Convention.

3. Nikzad, A., Cong, Y., Hänsel, K., Cho, S., Berretta, S., **Behbehani, L.M.,** Tang, S.X. (April, 2022). *Modeling Cross-Diagnostic Speech Disturbance with Semantic and Structural Speech Graphs.* Presented at the Society of Biological Psychiatry's Annual Meeting.

2. Hänsel, K., Nikzad, A., Cong, Y., Mehta, A., Cho, S., Berretta, S., **Behbehani, L.M.,** Tang, S.X. (April, 2022) Predicting *General Psychopathology with Multi-Modal Speech and Language Features.* Presented at the Society of Biological Psychiatry's Annual Meeting.

1. Blossom, S.M., Halliday, A.R., Roth, G., Domenech, K., Abramenko, P., Pollack, K., Pascal, G., **Behbehani, L.M.,** Been, L.E., and Kelly, M. (November, 2021). *The effects of long-term oral tamoxifen administration on anxiety and cognition in Long-Evans Hooded female rats: a potential role for BDNF?* Presented at the Society for Neuroscience Annual Meeting.

Oral Presentations

1. **Behbehani, L.M.** & Pascal, G. (May, 2021). *The Effect of Chronic Tamoxifen Treatment on Mood-Related Behaviors in Rats.* Presented at the Annual Meeting for Psychology and Neuroscience Research at Haverford College.

RESEARCH EXPERIENCE

Project Manager *April 2023 - Present*
Feinstein Institutes for Medical Research
Zucker Hillside Hospital, Northwell Health
Principle Investigators: Julia Tartaglia, M.D. & Khatiya Moon, M.D.
- Ensure operational excellence in implementing an innovative research and clinical digital health initiative at the hospital level.
- Manage aspects of a large-scale, randomized, high-risk double-blind clinical trial, including industry liaison, assembling study materials, and operating software platforms to investigate the safety and utility of a suicide prevention digital therapeutic.
- Recruit participants from the inpatient psychiatric setting with severe suicide ideation and/or recent suicide attempts and administer clinical assessments accordingly.
- Serve as the unblinded individual to the study team, and randomize participants accordingly.
- Supervise, train, and mentor junior research coordinators on study procedures and assessments.

Clinical Research Coordintor
Feinstein Institutes for Medical Research, Queens, NY *June 2021 - Present*
Zucker Hillside Hospital, Northwell Health
Principle Investigator: Sunny X. Tang, M.D.
- Implement nine observational studies investigating social cognition and linguistic biomarkers in severe mental illness, with an emphasis on schizophrenia spectrum disorders.
- Conduct and supervise study procedures and assessments including screening, clinical and diagnostic interviews, and neurocognitive tests.
- Lead in creating, programming, and supervising data collection and management across all studies.

- Contribute to lab-wide data analyses and maintenance using R programming software and REDcap.
- Assist in literature reviews, grant proposals, IRB submissions, and manuscript writing.
- Train and mentor additional coordinators, visiting scholars, and medical student volunteers.

Research Coordinator
Northshore Therapeutics   *July 2023 – Present*
Supervisor: Sunny Tang, M.D.
- Recruit for, schedule, and administer market research interviews regarding novel augmented reality treatments for negative symptoms in schizophrenia.
- Design and monitor data collection from semi-structured interviews.
- Provide feedback to marketing and design staff for use in FDA-approved technology design.

Haverford College, Haverford, PA   *August 2020 – October 2021*
Supervisor: Mary Ellen Kelly, Ph.D & Laura Been, Ph.D.
Research Assistant/Senior Thesis Student
- Conducted behavioral analyses using rodent mazes to observe possible changes in mood following tamoxifen administration.
- Directed lab-wide data analyses on existing data using R programming software, SPSS, and Jamovi.
- Presented findings to the department showing significant anxiety and depression-like symptoms in rodents post-long-term tamoxifen treatment.
- Assisted in abstract proposal and literature reviews.

Children's Hospital of Philadelphia, Philadelphia, PA   *January 2019 - August 2020*
Supervisor: Lisa Schwartz, Ph.D.
Research Assistant
- Constructed care plans for adolescent and young adult cancer survivors with comorbid mental illness.
- Assisted in data organization and analysis using SPSS and REDcap for ongoing studies.
- Assisted in compiling literature reviews for upcoming studies on alternate forms of symptom management in young cancer patients.

Chelsea and Westminster Hospital, London, UK   *June - August 2019*
Research Intern, Borne Charity/Imperial College Research Programme
- Studied the loss of immune tolerance in pre-term birth and the association between the degree of dysregulation of immune function and the phenotype of labor.
- Dissected human placenta to isolate lymphocytes from decidua basalis.
- Assisted in the analysis of phenotypes of NK and T cells using flow cytometry.

Imperial College, London, UK   *June - August 2018*
Undergraduate Research Opportunities Programme (UROP) Participant
Supervisor: Simone Di Giovanni
- Studied the effects of intermittent fasting on muscle innervation following nerve injury.
- Imaged and analyzed neurons for axonal regeneration using immunohistochemistry techniques.
- Assisted in RNA sequencing of dorsal root ganglion in mice.

CLINICAL AND VOLUNTEER EXPERIENCE

Crisis Text Line, Virtual   *November 2021 – Present*
Volunteer Crisis Counselor
- Counsel individuals in crisis for a 24/7 national crisis and suicide prevention hotline.
- Determine risk level of texters and coordinate with other staff in cases of imminent risk.
- Volunteer at least 5 hours a week.

Hearts and Homes, Westchester, NY   *June 2022 – Present*
Volunteer and ESOL tutor
- Support holistic refugee resettlement in the Westchester and Bronx areas of New York.
- Focus on the resettlement of Afghan refugees from US army bases and support their transition.
- Teach ESOL courses to assigned families/individuals in the network.
- Meet weekly for ESOL tutoring and construction of lesson plans.

Young Adult Cancer Connection, Philadelphia, PA   *June 2020 – June 2021*
Outreach Intern
- Curated resources for adolescent and young adult cancer patients and hosted virtual conferences.
- Researched and performed outreach to US adolescent and young adult oncology patients.

Healthy Mind Committee, **Haverford College**, Haverford, PA   *September 2018 – May 2021*
Member
- Met weekly to organize events and improve mental health resources for Haverford students.

Phebe Anna Thorne School, Bryn Mawr, PA   *September 2017 – March 2020*
Teaching Assistant
- Assisted teachers with a class of 15 children.
- Ran smaller groups in writing and reading development for students with special needs.

SKILLS

Statistical, Survey, and Programming Software: R programming language, Python, Jamovi, SPSS, Mathematica; Microsoft Office; REDcap, Qualtrics.

Languages: English (fluent), Farsi (fluent), French (intermediate)

ASSESSMENT TRAINING AND EXPERIENCE

Diagnostic Interview & Clinical Rating Scales
- Structured Clinical Interview for DSM-V (SCID-V)
- Brief Psychiatric Rating Scale (BPRS)
- Scale for the Assessment of Negative Symptoms (SANS)
- Scale for the Assessment of Positive Symptoms (SAPS)
- The Positive and Negative Syndrome Scale (PANSS)
- Young Mania Rating Scale (YMRS)
- Hamilton Depression Rating Scale (HAM-D)

- Mongomery-Asberg Depression Rating Scale (MADRS)
- Scale for Suicide Ideation (SSI)
- Columbia-Suicide Severity Rating Scale (C-SSRS)
- Quality of Life Scale (QLS)
- Scale for the Assessment of Thought, Language, and Communication (TLC)
- Thought and Language Index (TLI)
- Global Functioning: Social and Role (GF: Role, GF: Social)

Neuropsychological Training
- Measurement and Treatment Research to Improve Cognition in Schizophrenia (MATRICS)
- Repeatable Battery for the Assessment of Neuropsychological Status (RBANS)
- Consensus Cognitive Battery (MCCB)
- Brief Visuospatial Memory Test (BVMT)
- Hopkins Verbal Learning Task (HVLT)
- Letter-Number Span (LNS)
- Neuropsychological Assessment Battery (NAB)
- Wide-Range Achievement Test (WRAT)
- The Ambiguous Intentions Hostility Questionnaire (AIHQ)
- Hinting Task