ELIZABETH C. STADE, PH.D.

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EMPLOYMENT AND EDUCATION

Stanford University   2025 – current
Research Scientist, Institute for Human-Centered Artificial Intelligence

Stanford University   2023 – 2025
Postdoctoral Fellowship, Institute for Human-Centered Artificial Intelligence

VA Palo Alto Health Care System   2022 – 2023
Predoctoral Clinical Psychology Intern (APA-accredited)

University of Pennsylvania   2017 – 2023
Ph.D., Clinical Psychology (APA- and PCSAS-accredited)
<u>Dissertation:</u> *Novel Methods of Assessing and Classifying Depression, Anxiety, and Perseverative Thought*

University of Pennsylvania   2017 – 2018
M.A., Psychology
<u>Thesis</u>: *A Novel Measure of Real-Time Perseverative Thought*

Icahn School of Medicine at Mount Sinai   2015 - 2017
Clinical Research Coordinator, Depression and Anxiety Center

Barnard College, Columbia University   2011 – 2015
B.A., Psychology & Religion *(summa cum laude)*

GRANTS AND FELLOWSHIPS

National Science Foundation, Graduate Research Fellowship Program (**$138,000**)   2018 – 2021

University of Pennsylvania, Benjamin Franklin Fellowship (**$130,000**)   2017, 2021 – 22

University of Pennsylvania, Graduate Research & Travel Awards (total **$3,717**)   2018 – 2022

HONORS AND AWARDS

Society for Research in Psychopathology   2022
     Smadar Levin Award preliminary finalist *(for the most outstanding submission from a graduate student)*

Barnard College, Columbia University   **2015**
  Phi Beta Kappa, Mary E. Allison Prize *(for academic excellence)*, Psychology Faculty Recognition
  Prize

RESEARCH INTERESTS

- Using artificial intelligence, large language models, and natural language processing to assess and treat mental disorders

- Cognitive and behavioral processes in psychopathology (e.g., worry, rumination, behavioral anxiety)

- Diagnosis and classification of the emotional disorders; validity of transdiagnostic or dimensional approaches

- Mechanisms and action and therapist fidelity in the cognitive behavioral therapies

PUBLICATIONS

Stade, E. C., Eichstaedt, J. E., Kim, J. P., Wiltsey Stirman, S. Readiness Evaluation for AI-Mental Health Deployment and Implementation (READI): A review and proposed framework (in press). *Technology, Mind, and Behavior.* https://osf.io/preprints/psyarxiv/8zqhw

Stephenson, A. R., **Stade, E. C.,** & Ruscio, A. M. Measuring behavioral responses to a social stressor: Does the Social Performance Rating Scale have utility beyond social anxiety disorder? *Behaviour Research and Therapy.* Advance online publication. https://doi.org/10.1016/j.brat.2025.104700

Stade, E. C., Wiltsey Stirman, S., Ungar, L., Schwartz, H. A., Yaden, D. B., Sedoc, J., DeRubeis, R. J., Willer, R., Eichstaedt, J. E. (2024). Large language models could change the future of behavioral healthcare: a proposal for responsible development and evaluation. *npj Mental Health Research.* https://doi.org/10.1038/s44184-024-00056-z

Rai, S., **Stade, E. C.,** Giorgi, S., Francisco, A., Ungar, L., Curtis, B., (2024). Key language markers of depression depend on race. *PNAS. 121*(14). https://doi.org/10.1073/pnas.2319837121

Stade, E. C., DeRubeis, R. J., Ungar, L., & Ruscio, A. M. (2023). A transdiagnostic, dimensional classification of anxiety shows improved parsimony and predictive noninferiority to *DSM. Journal of Psychopathology and Clinical Science. 132*(8), 937-948. https://doi.org/10.1037/abn0000863

Stade, E. C., Ungar, L., Eichstaedt, J. C., Sherman, G., Ruscio, A. M. (2023). Depression and anxiety have distinct and overlapping language patterns: Results from a clinical interview.

Journal of Psychopathology and Clinical Science. 132(8), 972–983.
https://doi.org/10.1037/abn0000850

Stade, E. C., Ungar, L., Havaldar, S., Ruscio, A. M. (2023). Perseverative thinking is associated with features of spoken language. *Behaviour Research and Therapy. 165.*
https://doi.org/10.1016/j.brat.2023.104307

Stade, E. C., & Ruscio, A. M. (2022). A meta-analysis of the relationship between worry and rumination. *Clinical Psychological Science. 11*(3), 552-573.
https://doi.org/10.1177/21677026221131309

Stade, E. C., Cohen, R., Loftus, P., & Ruscio, A. M. (2022). A novel measure of real-time perseverative thought. *Clinical Psychological Science. 10*(3), 534–552.
https://doi.org/10.1177/21677026211038017

Costi, S., Soleimani, L., Glasgow, A., Brallier, J., Spivack, J., Schwartz, J., Levitch C. F., Richards, S., Hoch, M., **Stade, E. C.,** Welch, A., Collins, K. A., Feder, A., Iosifescu, D. V., Charney, D. S., & Murrough, J. W. (2019). Lithium continuation therapy following ketamine in patients with treatment resistant unipolar depression: a randomized controlled trial. *Neuropsychopharmacology*, *44*, 1812–1819. https://doi.org/10.1038/s41386-019-0365-0

Murrough, J. W., **Stade, E. C.,** Sayed, S., Ahle, G., Kiraly, D. D., Welch, A., Collins, K. A., Soleimani, L., Iosifescu, D. V., & Charney, D. S. (2017). Dextromethorphan/quinidine pharmacotherapy in patients with treatment resistant depression: A proof of concept open label clinical trial. *Journal of Affective Disorders, 218*, 277-283.
https://doi.org/10.1016/j.jad.2017.04.072

Stade, E. C., & Iosifescu, D.V. (2016). Using EEG for treatment guidance in major depressive disorder. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 1*(5), 411-422.
https://doi.org/10.1016/j.bpsc.2016.06.002

PRESENTATIONS AND INVITED TALKS

Sarma, K., Hanns, K., Feusner, J., Arevian, A. & **Stade, E. C.** (2024, December). Responsible applications of large language models to psychotherapy. In N. Obradovich & S. Khalsa (Chairs), *Innovations in Digital Mental Health: From AI-Driven Therapy to App-Enhanced Interventions,* Symposium presented at the Technology in Psychiatry Summit at the annual meeting of the American College of Neuropsychopharmacology, Phoenix, AZ.

Stade, E. C., & Eichstaedt, J. E. (Demeber, 2024). Positive developments in AI for mental health. Invited Talk: Mental Health America Board of Directors Meeting, Washington, DC (remote).

Held, P., Dondanville, K. Wiltsey-Stirman, S., & **Stade, E. C.** (2024, September). Using generative AI for PTSD homework help and fidelity coding. In P. Held (Chair), *Generative Artificial Intelligence in PTSD Treatment: Exploring Different Use Cases.* Symposium presented at the annual meeting of the International Society for Traumatic Stress Studies, Boston, MA.

Stade, E. C., (January, 2024). AI and PTSD: Applications of large language models to assessment and treatment. Invited Talk: National Center for PTSD Tech into Care Lecture Series.

Stade, E. C., (October, 2023). Large language models for clinical psychology. Invited Talk: Stanford University, Psychology Department Affective Sciences Seminar, CA, USA.

Stade, E. C., (June, 2023). Applications of artificial intelligence to psychotherapy. Invited Talk: National Center for PTSD All Staff Meeting, CA, USA.

Friedman, J., **Stade, E. C.,** & Ruscio, A. M. (2022, November). *Worry and rumination differ in their prediction of generalized anxiety disorder and major depressive disorder.* Poster presented at the Annual Meeting of the Association for Behavioral and Cognitive Therapies, New York, NY.

Stade, E. C., Ungar, L., & Ruscio, A. M. (2022, September). *A language-based model of perseverative thinking.* Poster and flash talk presented at the Society for Research on Psychopathology Annual Meeting, Philadelphia, PA.

Stephenson, A., **Stade, E. C.,** & Ruscio, A. M. (2021, November). *Measuring behavioral reactions to social stress in generalized anxiety disorder and major depressive disorder.* Poster presented at the Annual Meeting of the Association for Behavioral and Cognitive Therapies, New Orleans, LA.

Stephenson, A., **Stade, E. C.,** & Ruscio, A. M. (2020, November). *Relationship of reward responsiveness to severity and course features of major depressive disorder.* Poster presented at the Annual Meeting of the Association for Behavioral and Cognitive Therapies, Philadelphia, PA.

Stade, E. C., Loftus, P., Cohen, R., & Ruscio, A. M. (2019, March). *A novel measure of real-time perseverative thought.* Poster presented at the Annual Meeting of the Anxiety and Depression Association of America, Chicago, IL.

Murrough, J. W., **Stade, E. C.,** Sayed, S., Ahle, G., Kiraly, D. D., Welch, A., Collins, K. A., Soleimani, L., Iosifescu, D. V., & Charney, D. S. (2016, December). *Dextromethorphan/quinidine combination as a novel pharmacotherapeutic approach in patients with treatment resistant depression.* Poster presentation at American College of Neuropsychopharmacology, Hollywood, FL.

Stade, E. C., Aull, A., Ruyter-Harcourt, I., Rosenberg, M., Garduño, O., Banning, T., Liu, S., Shapiro, L., Sehayik, T., Levenson, L., Hong, K. E., & Heuer, L. (2014, March). *Deservingness beliefs as a moderator of procedural fairness in police-civilian encounters.* Poster presentation at the annual meeting of the Eastern Psychological Association, Boston, MA.

Jackson, M., Ruyter-Harcourt, I., Stiller, M., Kassan, M., Davids, M., **Stade, E. C.,** & Heuer, L. (2013, March). *Deservingness and status as moderators of procedural fairness.* Poster presentation at the annual meeting of the Eastern Psychological Association, New York, NY.

TEACHING

University of Pennsylvania
Abnormal Psychology (TA)   **2019**
Introduction to Psychology (TA/Recitation Leader)   **2018**

Barnard College
Statistics (Undergraduate TA)   **2015**

PROFESSIONAL SERVICE

Executive Guest Editor:
Cognitive and Behavioral Practice (special issue on AI and CBT, forthcoming)

Ad Hoc Reviewer:
Association for Computing Machinery Computer Human Interaction (ACM CHI), Emotion, Journal of Consulting and Clinical Psychology, Journal of Experimental Psychopathology, Journal of Psychopathology and Clinical Science, npj Digital Health, Nature Communications

University of Pennsylvania
Student Representative to the Clinical Faculty   **2021 – 2022**
Clinical Program Student Seminar Leader   **2019 – 2020**

CLINICAL EXPERIENCE

Veterans Affairs Palo Alto Health Care System

Psychology Intern   **2022 – 2023**
Clinical Rotations: Women's Health; Addiction Consultation & Treatment; Inpatient Psychiatry
Research Rotation: National Center for PTSD (PI: Shannon Wiltsey Stirman)
Interventions: Cognitive processing therapy (CPT); prolonged exposure (PE); acceptance and commitment therapy (ACT); cognitive behavioral therapy for chronic pain

University of Pennsylvania

Psychotherapy Extern, *Steven A. Cohen Military Family Clinic*   **2021 – 2022**
Interventions: CPT; ACT

Study Diagnostician/Clinical Interviewer, *Boundaries of Anxiety and Depression Lab*   **2017 – 2022**
Assessments: Anxiety and Related Disorders Interview Schedule for *DSM-5* (ADIS-5L); Hamilton Depression Rating Scale (HAM-D), Hamilton Anxiety Rating Scale (HAM-A)

Psychotherapy Extern, *Center for the Treatment and Study of Anxiety*   **2020 – 2021**
Interventions: PE, exposure and response prevention (EXRP/ERP) for OCD, and exposure-based CBT for anxiety disorders

Psychotherapy Extern, *Penn Cognitive Therapy Training Clinic* **2019 – 2020**
Interventions: CBT for depression; CBT for insomnia

Study Psychotherapist, *Sleep Neurobiology and Psychopathology Lab* **2019 – 2020**
Interventions: CBT for insomnia

Diagnosis & Assessment Extern, *Assessment Clinic* **2018 – 2019**
Assessments: Wechsler Adult Intelligence Scale (WAIS-IV); Minnesota Multiphasic Personality Inventory-2 (MMPI-2); Diagnostic Interview for Anxiety, Mood, and OCD and Related Neuropsychiatric Disorders (DIAMOND); Structured Clinical Interview for *DSM-IV* Axis II Disorders (SCID-II)

Icahn School of Medicine at Mount Sinai

Study Diagnostician/Clinical Interviewer, *Depression and Anxiety Center* **2015 – 2017**
Assessments: Structured Clinical Interview for DSM-IV (SCID-IV); Montgomery-Asberg Depression Rating Scale (MADRS)

Mount Sinai Saint Luke's and Roosevelt Hospitals

Sexual Assault/Domestic Violence Crisis Counselor, *Crime Victims Treatment Center* **2012 – 2015**

LICENSES AND CERTIFICATIONS

Licensed Clinical Psychologist (California License #35756) **2025**

University of Pennsylvania, *Center for the Treatment and Study of Anxiety (CTSA)*
Certified Prolonged Exposure Therapist **2021**
Certified Exposure and Response Prevention Therapist **2021**

New York State Department of Health
Certified Rape Crisis Counselor **2013**