Kaya **de Barbaro**

✉ kaya@austin.utexas.edu

Publications

Journal Articles

1. de Barbaro, K., Micheletti, M., Yao, X., Khante, P., Johnson, M., & Goodman, S. (2023). Infant crying predicts real-time fluctuations in maternal mental health in ecologically valid home settings. *Developmental Psychology*, *59*(4), 733–744. `https://doi.org/10.1037/dev0001530`

2. Micheletti, M., Yao, X., Johnson, M., & de Barbaro, K. (2022). Validating a model to detect infant crying from naturalistic audio. *Behavior Research Methods*. `https://doi.org/10.3758/s13428-022-01961-x`

3. Yao, X., Micheletti, M., Johnson, M., Thomaz, E., & de Barbaro, K. (2022, May). Infant crying detection in real-world environments. *ICASSP 2022 - 2022 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. `https://doi.org/10.1109/icassp43922.2022.9746096`

4. Morshed, M. B., Kulkarni, S. S., Saha, K., Li, R., Roper, L. G., Nachman, L., Lu, H., Mirabella, L., Srivastava, S., de Barbaro, K., Choudhury, M. de, Plötz, T., & Abowd, G. (2022). Food, mood, context: Examining college students' eating context and mental well-being. *ACM Transactions on Computing for Healthcare*, *3*(4), 1–26. `https://doi.org/10.1145/3533390`

5. de Barbaro, K., & Fausey, C. M. (2022). Ten lessons about infants' everyday experiences. *Current Directions in Psychological Science*, *31*(1), 28–33. `https://doi.org/10.1177/09637214211059536`

6. Levin, H. I., Egger, D., Andres, L., Johnson, M., Bearman, S. K., & de Barbaro, K. (2021). Sensing everyday activity: Parent perceptions and feasibility. *Infant Behavior and Development*, *62*, 101511. `https://doi.org/10.1016/j.infbeh.2020.101511`

7. Wu, C., Fritz, H., Bastami, S., Maestre, J. P., Thomaz, E., Julien, C., Castelli, D. M., de Barbaro, K., Bearman, S. K., Harari, G. M., Craddock, R. C., Kinney, K. A., Gosling, S. D., Schnyer, D. M., & Nagy, Z. (2021). Multi-modal data collection for measuring health, behavior, and living environment of large-scale participant cohorts. *GigaScience*, *10*(6). `https://doi.org/10.1093/gigascience/giab044`

8. Morshed, M. B., Kulkarni, S. S., Li, R., Saha, K., Roper, L. G., Nachman, L., Lu, H., Mirabella, L., Srivastava, S., Choudhury, M. D., de Barbaro, K., Ploetz, T., & Abowd, G. D. (2020). A real-time eating detection system for capturing eating moments and triggering ecological momentary assessments to obtain further context: System development and validation study. *JMIR mHealth and uHealth*, *8*(12), e20625. `https://doi.org/10.2196/20625`

9. Cychosz, M., Romeo, R., Soderstrom, M., Scaff, C., Ganek, H., Cristia, A., Casillas, M., de Barbaro, K., Bang, J. Y., & Weisleder, A. (2020). Longform recordings of everyday life: Ethics for best practices. *Behavior Research Methods*, *52*(5), 1951–1969. `https://doi.org/10.3758/s13428-020-01365-9`

10. Xu, T. L., de Barbaro, K., Abney, D. H., & Cox, R. F. A. (2020). Finding structure in time: Visualizing and analyzing behavioral time series. *Frontiers in Psychology*, *11*. `https://doi.org/10.3389/fpsyg.2020.01457`

11. Micheletti, M., de Barbaro, K., Fellows, M. D., Hixon, J. G., Slatcher, R. B., & Pennebaker, J. W. (2020). Optimal sampling strategies for characterizing behavior and affect from ambulatory audio recordings. *Journal of Family Psychology*, *34*(8), 980–990. `https://doi.org/10.1037/fam0000654`

12. de Barbaro, K. (2023). Understanding postpartum parents' experiences via two digital platforms. *Proceedings ACM on Human-Computer Interactions*.

Preprints

Books

Book Chapters

1. de Barbaro, K. (2023). Mobile sensing in developmental science: A practical guide for researchers. In *Mobile sensing in psychology: Methods and applications*.

Professional Presentations

Examining the dynamics and real-time effects of mother-infant heart rate synchrony across episodes of naturalistic infant distress.

International Congress of Infant Studies. Ottawa, Canada.   *2022*

Why study everyday interactions in development? Insights from a mobile sensing study.

Whole Communities Whole Health Research showcase. Austin, Texas.   *2022*

Big Data for Rich Insights into Maternal Depression

SPAM Meeting. Austin, Texas.   *2021*

Big data for rich insights into postpartum depression: Leveraging behavioral sensing and natural language processing for assessment, modeling and intervention.

Keynote presentation at the Conference on Interactivity, Language and Cognition. Virtual Meeting.   *2021*

Automated sensing of daily activity: A new lens into development.

Keynote presentation at the Sensorimotor Interaction, Language and Embodiment of Symbols (SMILES) Workshop.
Virtual Meeting.   *2021*

Automated sensing of daily activity: A new lens into development.

UCSD Cognitive Science Department Colloquim. San Diego, California.   *2021*

Automated sensing of daily activity: A new lens into development.

Department of Psychology Developmental Area Meeting. University of Texas. Austin, Texas.   *2020*

Behavioral risks for maternal depression: Automated sensing technology for assessment, modeling and intervention.

Anxiety and Depression Association of America Conference. Virtual Meeting.   *2021*

Detecting Everyday Activity from Audio: Challenges and Progress across the research pipeline.

Alex Cristia Lab meeting. Ecole Normale Supérieure. Paris, France.   *2021*

New Ways to Study Caregiver-Child Relationships in Development.

Psychology Advisory Committee. University of Texas. Austin, Texas.   *2020*

Sensing a Day in Mom's Life: Objective Markers of Everyday Experiences Predict Real-time Fluctuations in Maternal Mental Health.

Karen Adolph Lab meeting. Department of Psychology. New York University.   *2020*

Mama tried: Contingent responding to distress does not increase rates of real-time soothing in infants high in negative emotionality.

International Society for Infant Studies. Glasgow, Scotland.   *2020*

Behavioral risks for maternal depression: Automated sensing technology for assessment, modeling and intervention.

Presentation accepted for the Anxiety and Depression Association of America Conference. San Antonio, Texas.   *2020*

Leveraging wearable sensors to detect objective markers of behavioral risk for maternal depression.

Presentation accepted for the Anxiety and Depression Association of America Conference. San Antonio, Texas.   *2020*

Conference Abstracts

Variation in everyday caregiver sensitivity predicts infants' real-time physiological regulation.

Society for Research in Child Development   *2023*

Evaluating Objective Assessment of Auditory Household Chaos as a Predictor of Physiological Arousal in Infants.

Society for Research in Child Development.   *2023*

The Effects of Caregiving Behaviors on Real-time Infant Physiological Regulation.

Society for Research in Child Development.   *2023*

Postpartum Support-Bot: An Ethically Co-designed Chatbox for Mothers Experiencing or at Risk of Postpartum Mood and Anxiety Disorders.

Postpartum Support International 35th Annual Conference. New Orleans, LA. *2022*

INFANT CRYING DETECTION IN REAL-WORLD ENVIRONMENTS

ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings *2022*

Differences in caregiver sensitivity related to varied patterns of infant engagement of the vagal brake during spontaneous distress.

Cognitive Development Society (CDS) Conference. Madison, WI. *2022*

Examining the dynamics and real-time effects of mother-infant heart rate synchrony across episodes of naturalistic infant distress.

International Congress of Infant Studies (ICIS), Ottawa, Canada. *2022*

Háblame Mamá: Acoustic Detection of Vocal Affect in Spanish Speaking Mothers'.

Cognitive Development Society. Madison, WI. *2022*

Maternal sensitivity "in the wild" is highly variable and systematically varies across contexts.

International Congress of Infant Studies (ICIS), Ottawa, Canada. *2022*

Maternal speech decreases during periods of detected ambulatory phone-use.

International Congress of Infant Studies (ICIS), Ottawa, Canada. *2022*

Testing Porges' Polyvagal Theory: Evidence for real-time RSA changes within natural infant distress.

International Congress of Infant Studies (ICIS), Ottawa, Canada. *2022*

Characterizing Mother-Infant Physiological Synchrony During Everyday Home Activities.

Society for Research in Child Development Virtual Biennial Meeting. *2021*

Evaluating Objective Assessment of Daily Holding as a Predictor of Parasympathetic Tone in Mother-Infant Dyads.

Society for Research in Child Development Virtual Biennial Meeting. *2021*

Maternal Mood and Contingency to Infant Distress in Everyday Settings.

Society for Research in Child Development Virtual Biennial Meeting. *2021*

A Comparison of Automated Methods for Quantifying Daily Infant Crying from Naturalistic Audio Recordings.

International Conference on Infant Studies. Glasgow, Scotland. *2020*

Developing a Postpartum "Support-Bot": Collaboration Plan and First Analyses.

Postpartum Support International 33rd Annual Conference. Online. *2020*

Who Talks to Babies? Multimodal Ambulatory Assessments Predict Hour-by-Hour Fluctuations in Caregiver Speech Over a Week.

International Conference on Infant Studies. Glasgow, Scotland. *2020*

Honors

Ann Repp Teaching Award *Austin, US*

The University of Texas at Austin *2022*

Funding

Summer funding *Bridging Barriers UT Austin Internal funding,*

Funding: $10,000 *2023 - 2023*

WCWH student funding

FUNDING: $45,000

One-time stipend for joining TOC

FUNDING: $12,000

WCWH student funding

FUNDING: $20,000

Postpartum support-bot: An ethically co-designed chatbot for mothers experiencing or at risk of postpartum mood and anxiety disorders

FUNDING: $98,000

High-density markers of mother-infant bio-behavioral activity "in the wild": Developing a mobile-sensing paradigm to examine transmission of mental health risks

FUNDING: $472,736

Development and Validation of Clinically Relevant Activity Algorithms for Child Psychopathology

FUNDING: $25,000

Service

Whole Communities Whole Health

MEMBER OF THE ORGANIZING COMMITTEE (TOC)

Austin, US

2022 - 2023

Data Science Task Force

MEMBER

Austin, US

2020 - 2023

Whole Communities Whole Health

MEMBER

Austin , US

2017 - 2023

Faculty Search Committee for Computational Analysis of Social Behavior Position

MEMBER

Austin, US

2021 - 2022

Executive Committee

MEMBER

Austin, US

2019 - 2020

Candidacy Committee for Chen Yu

MEMBER

Austin, US

2019 - 2020

Mentoring and Teaching

MENTORING

Luke Armao

ADVISOR

2023 - 2024

Anna Madden-Rusnak

PHD ADVISOR

2020 - 2023

Megan Micheletti

PHD ADVISOR

2018 - 2023

Xuewen Yao

PHD ADVISOR

2018 - 2023

Priyanka Khante

PHD ADVISOR

2018 - 2023

Annissa Saleh

Pʜᴅ Aᴅᴠɪsᴏʀ *2021 - 2022*

Miriam Mikhelson

Pʜᴅ Aᴅᴠɪsᴏʀ *2020 - 2022*

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PSY395S: Fundamentals of Developmental Psychology

Iɴsᴛʀᴜᴄᴛᴏʀ *2023 - 2023*

PSY333D Intro to Developmental Psychology

Iɴsᴛʀᴜᴄᴛᴏʀ *2022 - 2022*

PSY395S: Fundamentals of Developmental Psychology

Iɴsᴛʀᴜᴄᴛᴏʀ *2022 - 2022*

PSY333D: Intro to Developmental Psychology

Iɴsᴛʀᴜᴄᴛᴏʀ *2021 - 2021*

PSY333D: Intro to Developmental Psychology

Iɴsᴛʀᴜᴄᴛᴏʀ *2020 - 2020*