

## 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*. <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. (2022). Mobile sensing in developmental science: A practical guide for researchers. In *Mobile sensing in psychology: Methods and applications*.

## Professional Presentations

---

**Acoustic Features of Maternal Day-to-Day Speech: Classification of Depression in Speech Pattern.**

INTERNATIONAL CONGRESS ON INFANT STUDIES IN OTTAWA, CANADA.

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. OTTAWA, CANADA.

2022

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

WHOLE COMMUNITIES WHOLE HEALTH RESEARCH SHOWCASE. AUSTIN, TEXAS.

2022

**Maternal Sensitivity “in the wild” is highly variable and systematically varies across contexts.**

INTERNATIONAL CONFERENCE OF INFANT STUDIES (ICIS). OTTAWA, CANADA.

2022

**Maternal Sensitivity “in the wild” is highly variable and systematically varies across contexts.**

WHOLE COMMUNITIES WHOLE HEALTH SHOWCASE. AUSTIN, TX.

2022

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

INTERNATIONAL CONFERENCE OF INFANT STUDIES (ICIS). OTTAWA, CANADA.

2022

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

INTERNATIONAL CONFERENCE OF INFANT STUDIES (ICIS). OTTAWA, CANADA.

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 COLLOQUIUM. 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

---

**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

**Variation in everyday caregiver sensitivity predicts infants' real-time 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**

THE UNIVERSITY OF TEXAS AT AUSTIN

Austin, US

2022

**Funding**

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

FUNDING: \$98,000

Good Systems,

2020 - 2022

**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

NIMH, K01MH111957

2017 - 2022

**Development and Validation of Clinically Relevant Activity Algorithms for Child Psychopathology**

FUNDING: \$25,000

Whole Communities Whole Health,

2019 - 2020

**Service**

**Data Science Task Force**

MEMBER

Austin, US

2020 - 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**

PHD ADVISOR

2021 - 2022

**Miriam Mikhelson**

PHD ADVISOR

2020 - 2022

TEACHING

**PSY395S: Fundamentals of Developmental Psychology**

INSTRUCTOR

2023 - 2023

**PSY333D Intro to Developmental Psychology**

INSTRUCTOR

2022 - 2022

**PSY395S: Fundamentals of Developmental Psychology**

INSTRUCTOR

2022 - 2022

**PSY333D: Intro to Developmental Psychology**

INSTRUCTOR

2021 - 2021

**PSY333D: Intro to Developmental Psychology**

INSTRUCTOR

2020 - 2020