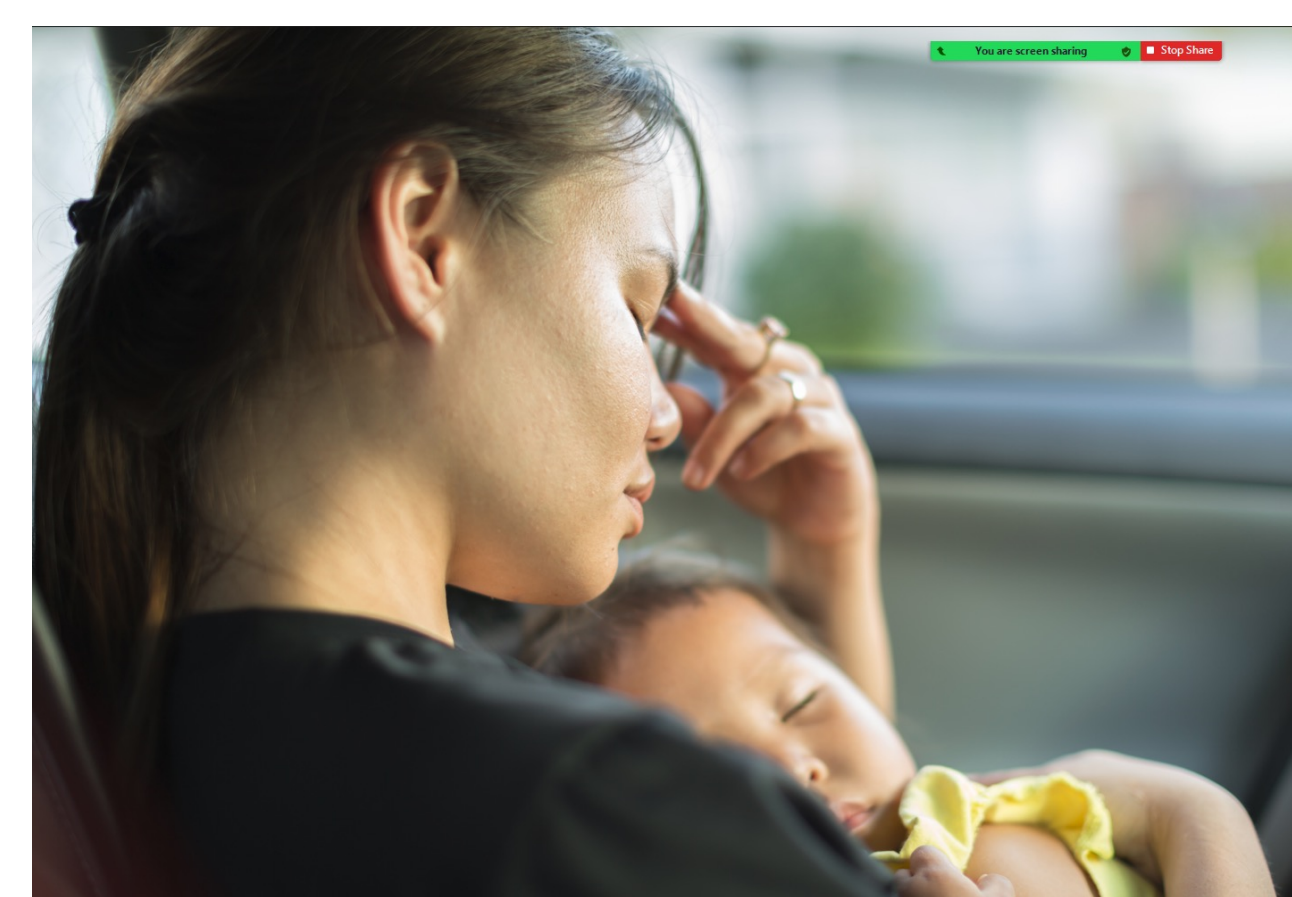




Background & Purpose

Postpartum Depression (PPD) & Maternal Risks

- Poor mother-infant interaction
- Poor performance of infant safety measures
- Poor engagement in perinatal healthcare
- Decreased breastfeeding
- Chronic depression
- Impaired maternal function
- Risk for suicide
- Barriers to attendance



Purchased from Istock, 2022

PPD and Infant Risks

- Cognitive development
- Social-emotional development
- Neurobehavioral development



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Purpose

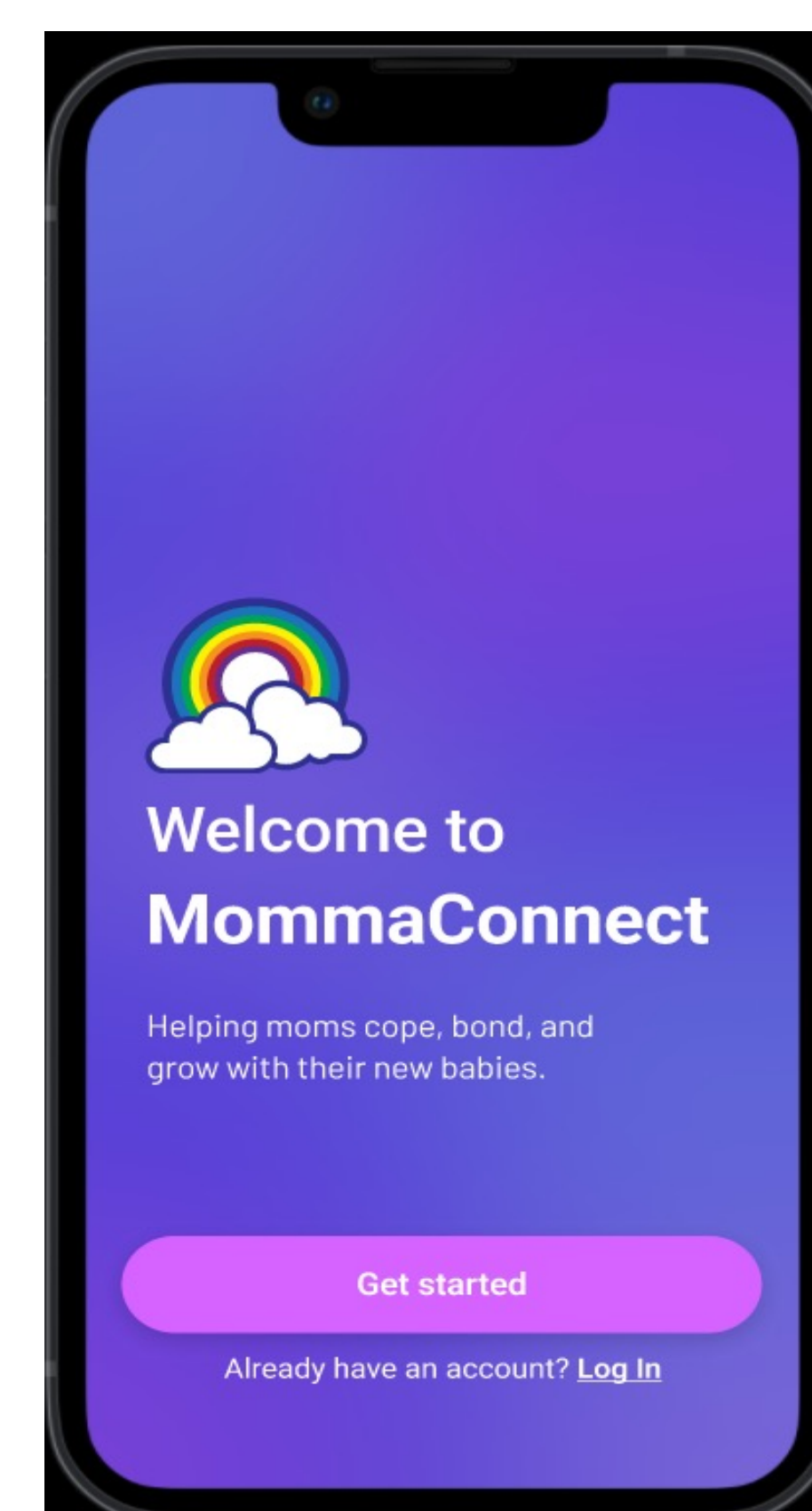
- To share our formative research and key features of *MommaConnect*, a mobile health application (App) for use by moms in conjunction with clinical providers

MommaConnect Platform

- Based on our perinatal intensive outpatient program: Mother Baby Connections (MBC) in Philadelphia PA
- Treats PPD symptoms and quality of mother-infant interaction
- Integrates two evidenced-based therapies:
 - Interpersonal Psychotherapy
 - Mother Baby Interaction Therapy

Key Features

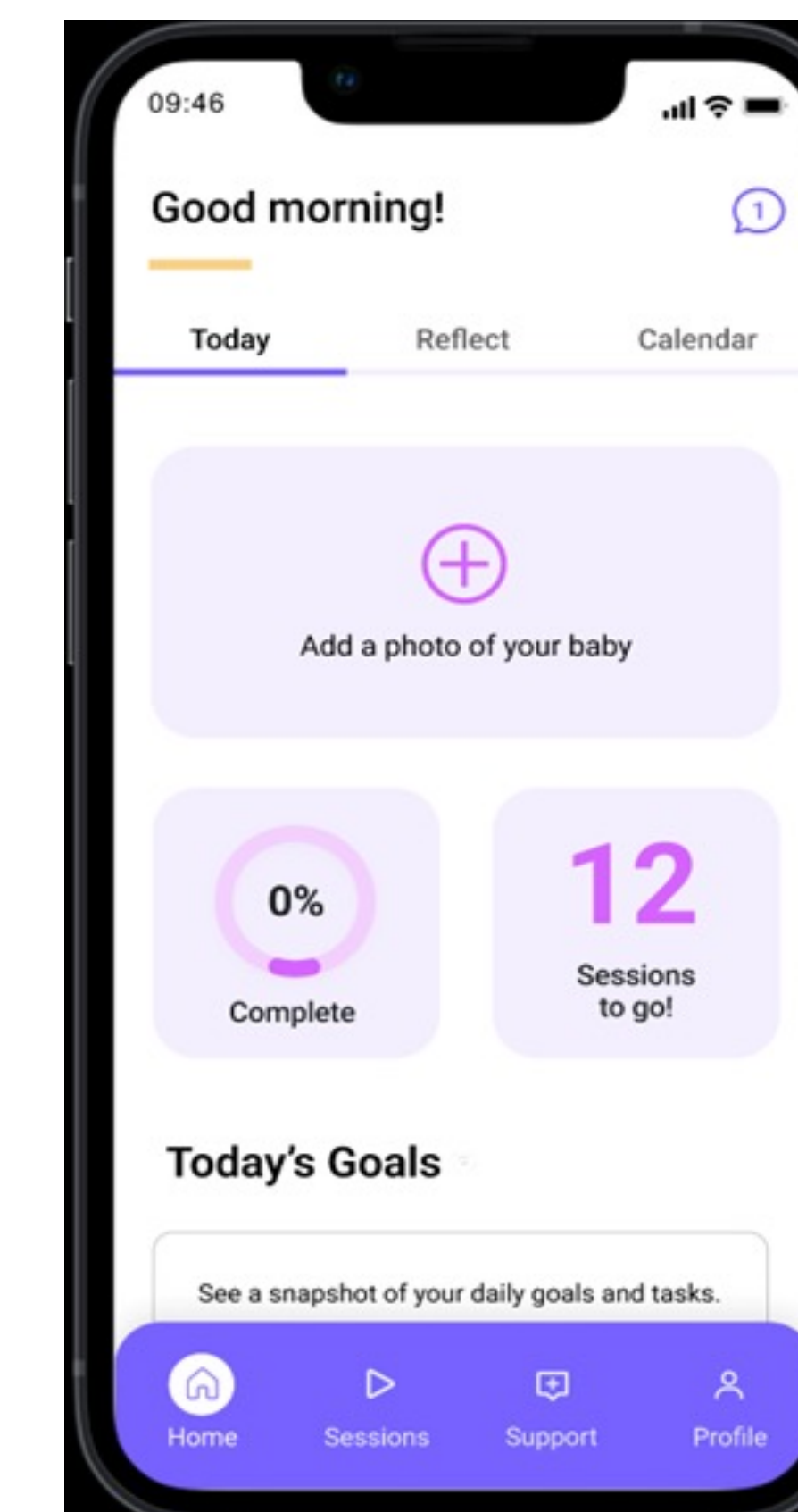
- Assessment (Mood, Symptoms, Mother-infant interaction, Barriers to homework)
- Agenda (for each session)
- Counseling & Psychoeducation
- Homework
- Plans for next session



Methods

User Centered Design

- Several focus groups with MBC patients and community advisory board (i.e., African American/Black and White woman who experienced PPD; Clinicians who treat PPD)
- Co-creation process: formative qualitative data to inform design
- Mock-ups of the app shown to elicit impressions
- Qualitative data were analyzed by content analysis after verbatim transcription of aggregate focus group data
- Focus group findings informed app development (*Iterative process*)



Findings - Mothers

Initial Feedback on Feature Themes

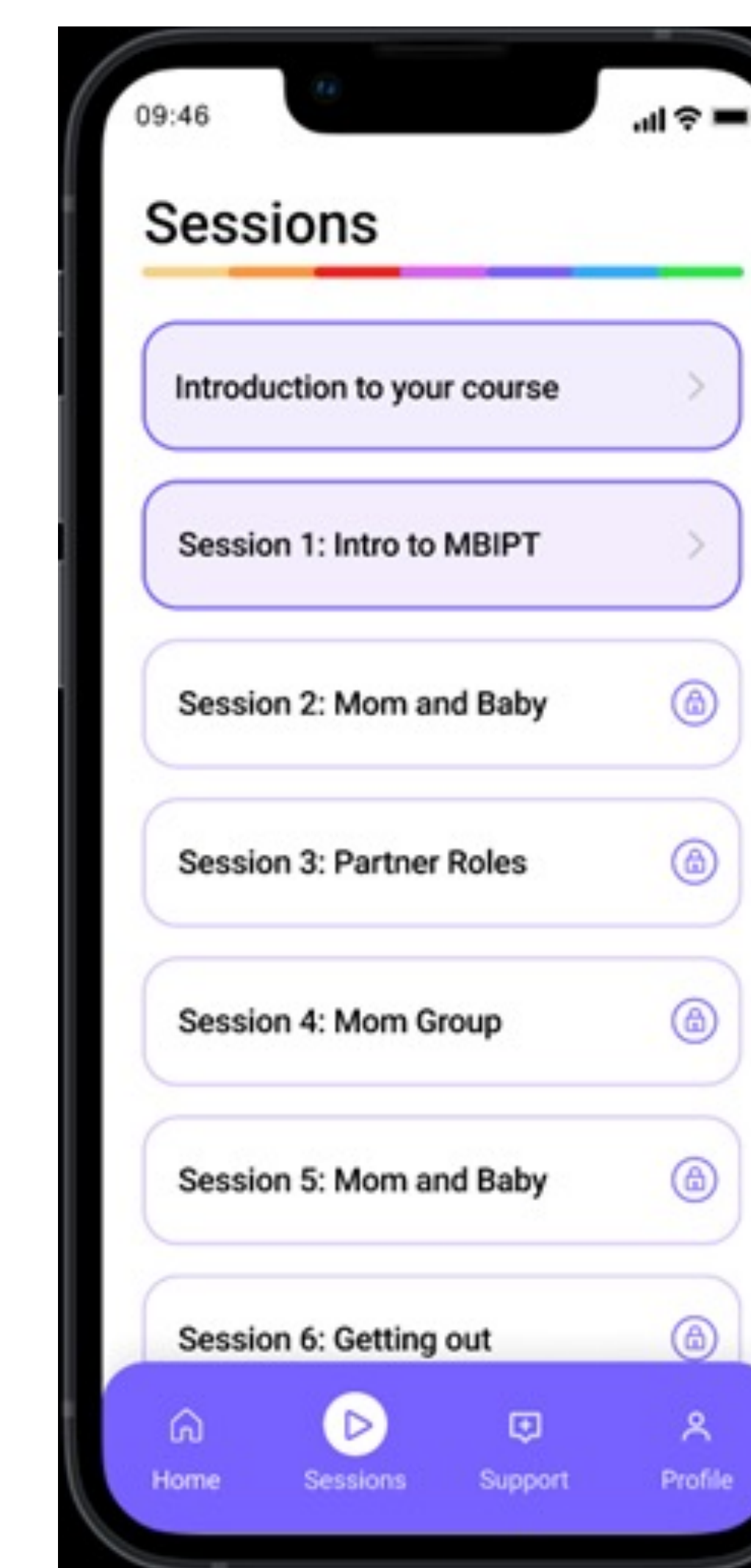
- Purple & pink colors
- Functions (e.g., emergency contact, upload mother-infant videos, journal function)
- Wording (e.g., session vs. lesson)
- Add diverse visuals

“Things I liked about the App...”

- *Ability to schedule w/ therapist*
- *Videos about baby's development*
- *Mindfulness ideas*
- *Diversity of the moms, babies, and families in the videos*
- *Ease of calling the suicide hotline for more immediate support and to schedule a session*
- *You can take notes for yourself, which can also be shared with a therapist*

“Improvements I would like to see...”

- *Make easier to log sleep*
- *Add support groups with other moms in the area*
- *A little confusing of how to navigate from one session to the next at first but once I got the hang of it, that worked smoothly.*
- *Recommend to have an option for tech support*



Findings - Clinicians

Initial Themes from Clinicians

- Experienced with apps and smartphones
- App can facilitate participation & info exchange
- Essential features: Calendar, dashboard, tracking
- Forms:
 - Symptom tracking
 - Fillable worksheets
 - Telehealth consent
 - Release of information
- Functionality – send information in real-time, recording, use on tablet, laptop or phone
- Emergency features (conference calls with family, supervisor, location tracker, emergency contact form)
- Concerns for confidentiality
- Training
- Feedback from patients on satisfaction
- Self-care module for clinicians



Next Steps, Funding & References

Next Steps: Continued App development (with diverse women with resource challenges); Feasibility testing; RCT

Funding: Stratton Grant (Jefferson); ACORN MassVentures; NIH SBIR Phase I

Selected References:

- Geller, P.A., Posmontier, B., Horowitz, J. Bonacquisti, A., Chiarello, L. (2018). Introducing mother baby connections: A model of intensive perinatal mental health outpatient programming. *Journal of Behavioral Medicine*, 41 (5), 600-613. doi:10.1007/s10865-018-9974-z
- Horowitz, J. A. Posmontier, B., Chiarello, L. A., & Geller, P. A. (2019). Introducing mother-baby interaction therapy for mothers with postpartum depression and their infants. *Archives of Psychiatric Nursing*, 33(30), 225-231. doi.org/10.1016/j.apnu.2019.05.002
- Posmontier, B., Geller, P.A., Horowitz, J., Elgohail, M., Chiarello, L. (online Jan. 2022). Intensive perinatal mental health programs in the United States: A call to action, *Psychiatric Services*. doi.org/10.1176/appi.ps.202100384

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