

Creating Personas to Inform the Adaptation of a Digital Anxiety Sensitivity Intervention to Prevent Perinatal Anxiety

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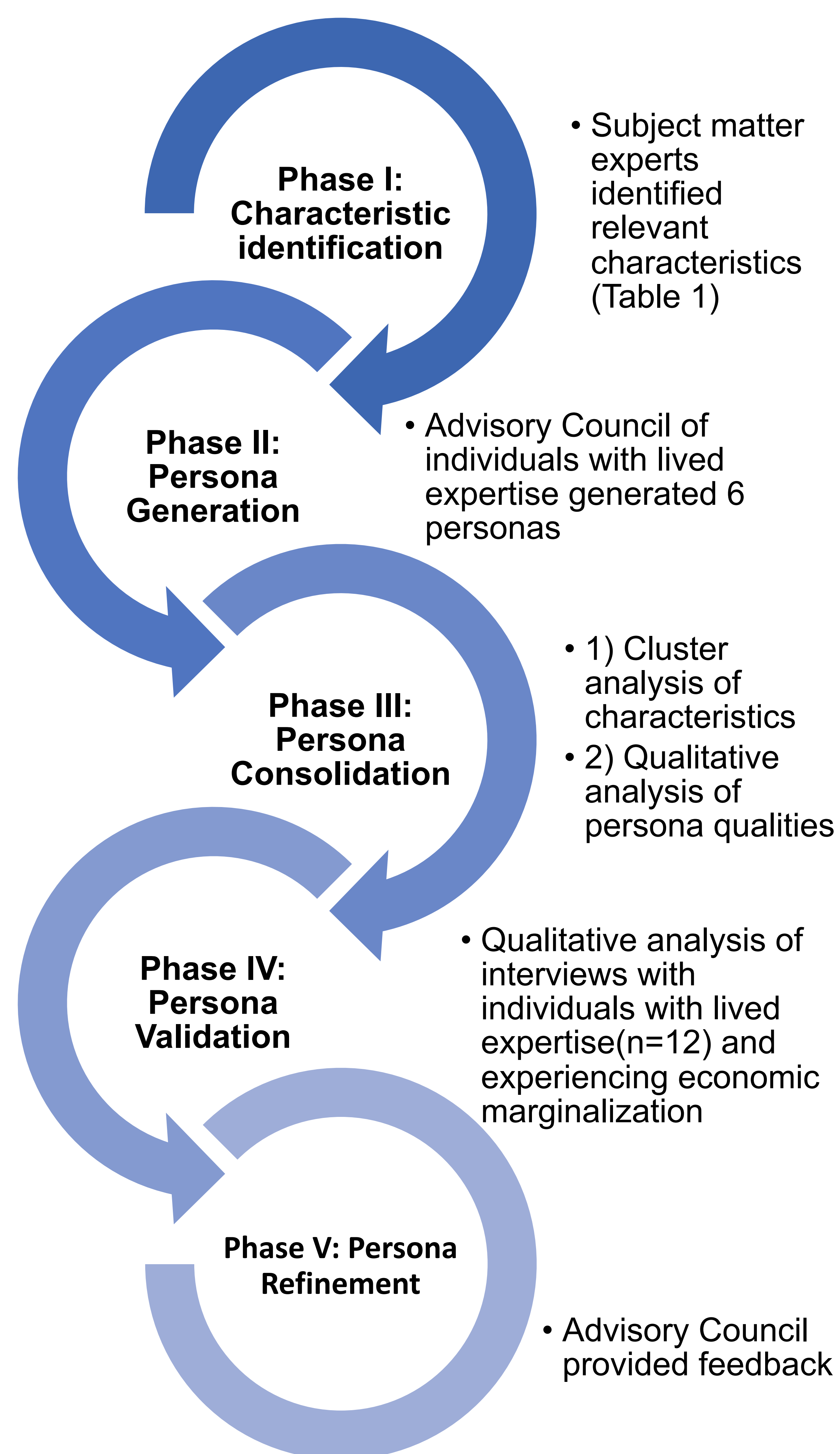
Background

- 1 in 5 perinatal individuals experiences an anxiety disorder
- Many affected individuals do not receive treatment
- Individuals who are economically marginalized are even less likely to receive treatment
- Digital health could be an accessible option to help prevent and reduce this burden
- Anxiety Sensitivity Interventions are brief, cognitive-behavioral interventions that prevent anxiety or reduce risk for anxiety disorders in the general population.
- Anxiety Sensitivity Interventions have not been developed for perinatal populations

Study Objective: Develop personas, or user profiles, to inform the adaptation of an Anxiety Sensitivity Intervention for perinatal individuals and for digital health that can reach individuals experiencing economic marginalization

Methods

- User-Centered Design (UCD)
- Community engagement



Results

Quantitative (rated 1=low to 10=high)	Qualitative
<ul style="list-style-type: none"> • Tech savviness • Perceived need for mental health support • Mental health history • Trauma history • Perceived social support • Access to and continuity of care • Self-efficacy • Discrimination • Trust in health care system 	<ul style="list-style-type: none"> • Demographics: (e.g., age, residence, income, marital status, children) • Facts and Interactions: A brief history, basic information about the persona's roles and responsibilities. • Challenges and Feelings: Relevant health challenges that this persona faces (e.g., challenges in relationships and at work.) • Goals, Wants, & Needs: What this persona wants from the intervention to meet their needs and goals and to overcome their challenges

- Phase II: Advisory Council generated 6 personas with qualitative characteristics and quantitative characteristics
- Phase III
 - Cluster analyses suggested three user profiles (Figure 1)
 - Generated Persona Card Templates (Figure 2) to guide qualitative analysis
- Phase IV
 - Validated Advisory Council-generated personas through end-user interviews
 - Added "Aware" persona based on end-user interviews
- Phase V: Refined personas and added consideration of persona with same-gender partner, and persona experiencing fertility challenges

Figure 1. Cluster Analysis of Advisory-Council Generated Personas

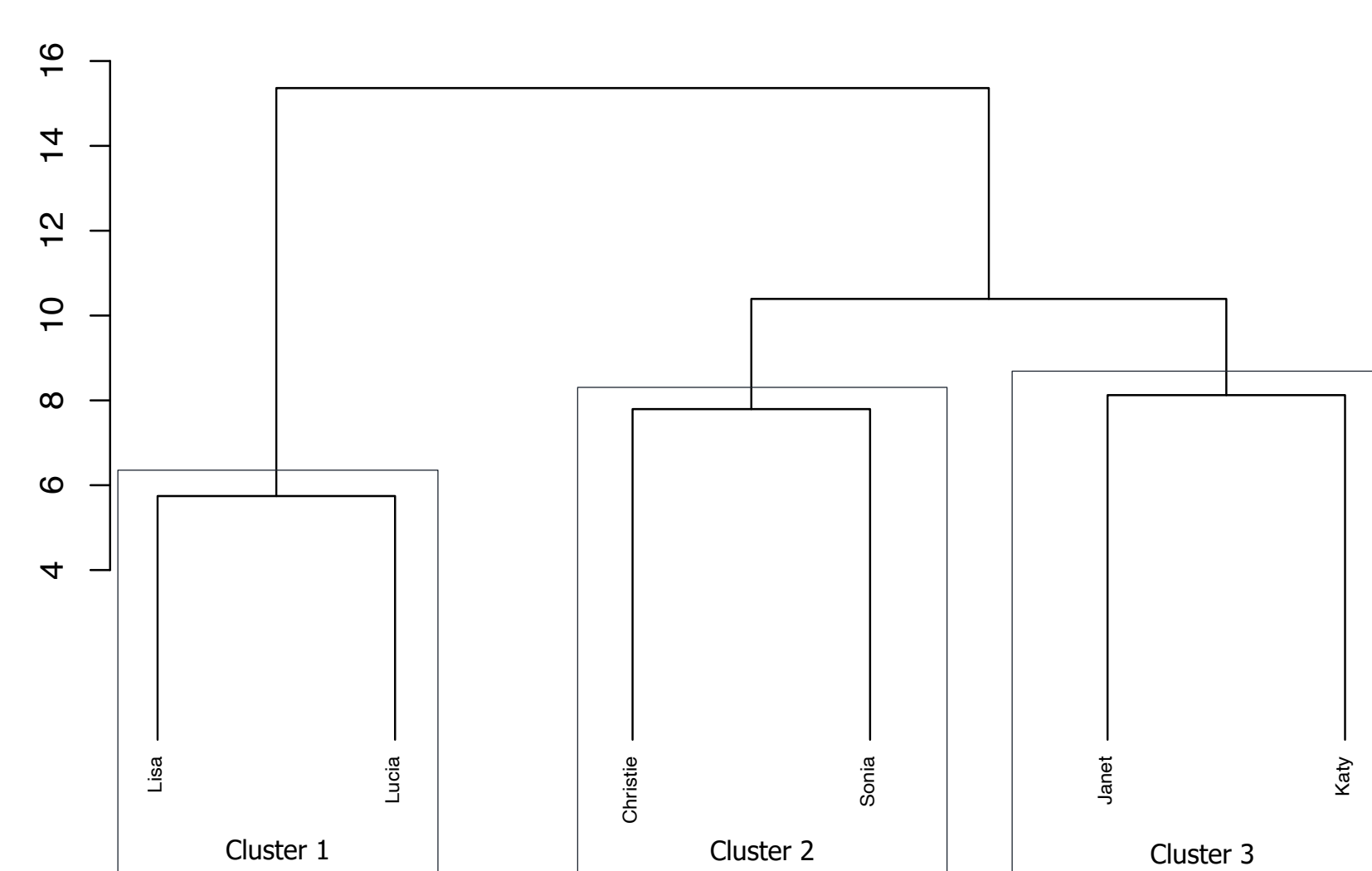
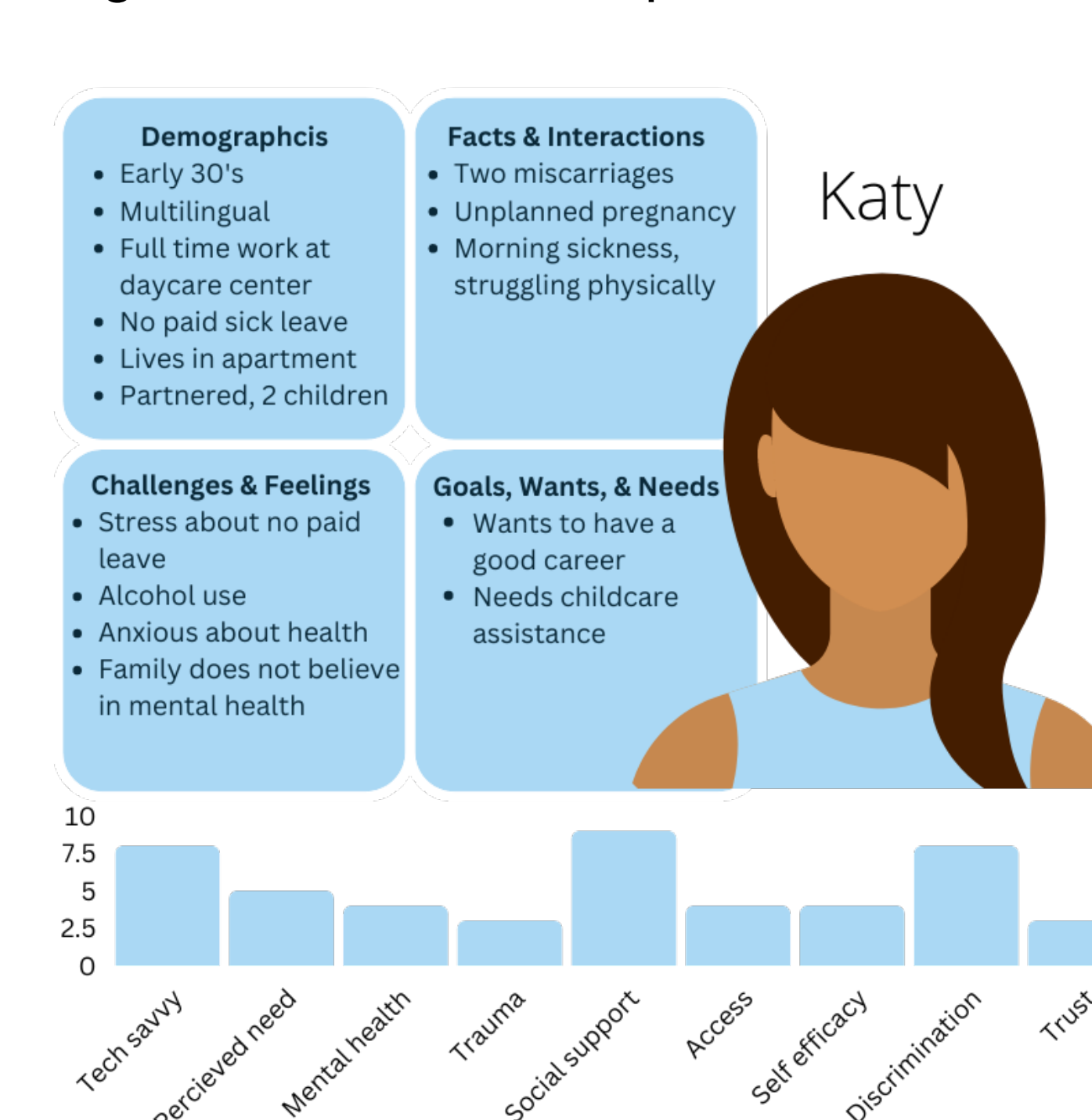


Figure 2. Persona Template Card



Personas

Lonely	Resilient	Overwhelmed	Aware
<ul style="list-style-type: none"> • First pregnancy • Not partnered or has same-gender partner • Little social support • Temporary housing • Challenges with phone bill • Wants stability, support 	<ul style="list-style-type: none"> • Trauma and discrimination • Little support from health care system • Has partner but may lack other social support • Mental health stigma • Food insecurity • Wants job security, support 	<ul style="list-style-type: none"> • One or more children • Health concerns • History of pregnancy loss or fertility concerns • Daily demands of childcare • Intermittent internet access 	<ul style="list-style-type: none"> • History of depression and anxiety • Connected with services • Lower mental health stigma • Seeking strategies

"New moms... There is no downtime, but there are moments throughout the day, that five minutes to read something and ground yourself would be helpful. I would totally have jumped on it if I would have known what I know now [about] anxiety because it's a real thing. And then start normalizing that."
 – Perinatal Individual (Participant 159)

Digital Health Intervention Design Implications

Personas generated through this process had distinct characteristics and design implications across four domains:

Additional content

- Example: "Resilient" persona wants support outside of health care system → Resource list and description of resources (e.g., doula, midwives)

Content personalization

- Example: "Lonely" persona feels excluded by representation of partnered pregnancy → Content should have inclusive options

Information provided by users

- Example: "Overwhelmed" persona has busy schedule → Ensure intervention does not feel burdensome (e.g., options for lower frequency asks for symptom monitoring, brief texts and videos)

Transparent options for data and information sharing

- Example: "Aware" persona is already connected with therapist → Options for sharing information with therapist

Limitations

- Interviews were limited to English-speaking participants and participants with Internet access only, limiting generalizability to other populations

Conclusions and Future Directions

- Understanding diverse user needs through persona generation could potentially promote greater population reach and generate sustained user engagement among populations not typically afforded access to behavioral health interventions
- Our team will create an app prototype that incorporates features based on these four personas with continued feedback from our advisory councils, perinatal individuals, and obstetric professionals

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