

Principles for Strength-Based Research Methods and Interventions that Recognize Language, Culture, and Development with Healthcare Clinicians



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Overview

This poster highlights the development of strength-based, family-centered public health interventions that recognize families' language and culture. Methods to expand the cultural relevance and reach of intervention practices implemented by healthcare providers are illustrated across two studies.

- Early and responsive language interactions between caregivers and children is foundational to brain development.
- Finding ways to promote rich language interactions among caregivers and children in naturalistic settings is critical.
- Evidence-based home visiting programs that pair trained professionals (e.g., nurses, social workers) with caregivers in under-resourced communities play a critical role in fostering early intervention strategies in community settings.
- Talk With Me Baby-Coaching, Outreach, Navigation, Networking and Engagement in Community-based Transformative Systems (**TWMB CONNECTS**) is a community-based 2Gen project that leverages family-centered approaches inclusive of child-level and adult-level interventions aimed at improving early brain and language development, parent training, and family well-being.
- **Háblame Bebé** is a bilingual app that supports caregiver-child language interactions, tracks developmental milestones, and builds caregiver confidence in early communication.

Purpose

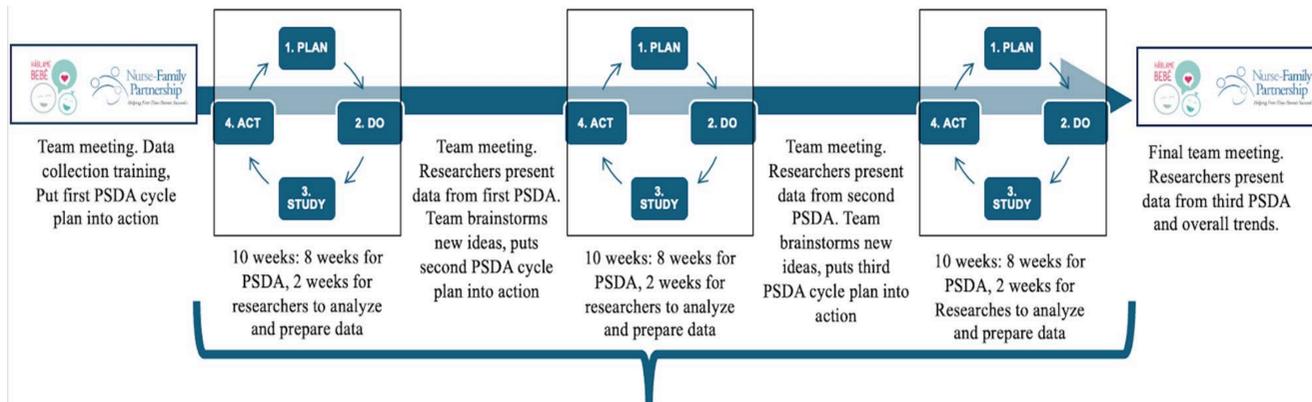
The studies highlight culturally and linguistically tailored early language interventions that support caregiver-child communication in families' home languages to enrich children's language development and promote sociolinguistic pride.

- **TWMB CONNECTS** engages community organizations and stakeholders in a 2Gen approach to strengthen early language and parent-child wellbeing at the family level.
- **Háblame Bebé** tested the integration of a parental coaching app that promotes bilingualism and language interactions into Nurse-Family Partnership using a Precision Home Visiting framework.

Method

Both intervention studies used mixed methods within researcher-community collaborations in co-creating interventions to increase cultural relevance:

- **Háblame Bebé** utilized PSDA cycles within an adaptive randomized trial to compare the effects of an **Háblame Bebé** group to a "business as usual" group with results analyzed using Generalized Linear Mixed Modeling.



- **TWMB CONNECTS** incorporated an interdisciplinary team of clinicians, researchers, and community members (n=9) partnered with community organizations (n=35) and families (n=146) over the course of 12-months.
 - To identify the acceptability of a 2Gen home visiting program and ways to enhance adoptability.
 - Family stakeholders (n=146) completed an online survey exploring the needs of families in underserved communities and barriers /facilitators to successful implementation.
 - Conducted community asset mapping to connect families with community resources as well as community listening sessions.

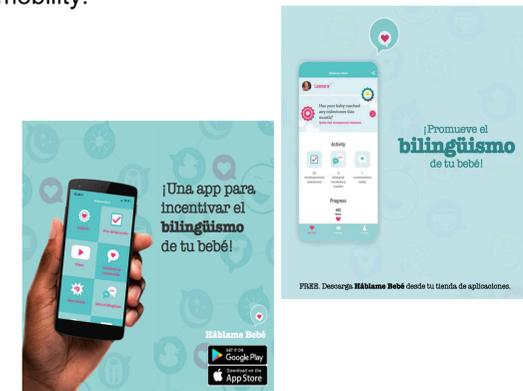
Results

TWMB CONNECTS

- Feedback informed a 2Gen curriculum that addressed early childhood language and brain development strategies and parental pathways to family self-sufficiency.
- Frequency, duration, and length of home visiting program:
 - Monthly (42%), Biweekly (12%), Other (48%)
 - Spanning 6 months (22%), 12 months (27%), 18 months (7%), 24 months (19%), Other (25%)
 - Lasting 30 minutes (58%), 45 minutes (17%), 60 minutes (5%), 75 minutes (1%), Other (20%)
- Early childhood language and brain development content included the CDC *L TSAE* and Talk With Me Baby (TWMB).
- Parental pathways to family self-sufficiency: SMART goals, job/ career coaching, and financial well-being.
- As part of the home visiting program, families will be connected to community resources to ensure they have opportunities for educational advancement and increased economic mobility.

Háblame Bebé

- App analytics: log-ins, vocab entries, milestones, daily "five-hearts"
- Mother surveys + app PSDA cycles for process monitoring
- Nurses: ↑ Knowledge ($Z = -2.04, p = .041, r = .83$), ↑ Confidence.
 - App usage: High across participants.
- Infants:
 - Gestures ↑ ($p = .017$) & Vocalizations ↑ ($p = .012$)
 - Single-word use ↑ ($p = .018$)
 - All produced words by study end.



Summary Discussion

TWMB CONNECTS: The grassroots design of an intervention targeting child, parent, and family, paired with ongoing community engagement, provides a strong foundation for uptake within communities in need.

Háblame Bebé: Nurses can leverage digital tools to expand developmental coaching. Technology-enabled approaches enhance reach and scalability of home visitation.

The BWG Research Network framework for advancing equity in language development informed this project.

The following principles highlight the ways in which these projects incorporated the framework into practice:

- ❖ Principle 2: Developing interventions that build on families' strengths, such as cultural and linguistic assets.
- ❖ Principle 3: Engaging diverse community stakeholders in co-creating language-promoting interventions to ensure cultural relevance, linguistic appropriateness, and ecological validity.
- ❖ Principle 4: Strategies are designed to be practical, accessible, and embedded in families' routines—at home, in childcare, and community settings—targeting everyday interactions as opportunities for language enrichment.
- ❖ Principle 9: Invests in sustained community coalitions across early care, health, and community sectors, grounded in trust and shared goals.

Acknowledgments

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