Māmā aroha: Summary of research about a digital breastfeeding resource to improve support for māmā



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Waiū is a taonga and fundamental aspect of ūkaipō requiring protection and promotion as part of whānau ora. Most Māori women intend to breastfeed and achieve high rates of exclusive breastfeeding prior to leaving a maternity facility. However, this rate drops off dramatically by the time pepi reaches 3 months of age, with less than 50% exclusively breastfed (and at 6 months only 20%). Research has identified many challenges that hinder Māori babies receiving breastmilk. However, there is still more work to identify effective breastfeeding support for Māori. Digital health innovation can support the sharing of accurate health information in engaging and accessible ways for whanau to be empowered to determine their own health and wellbeing. According to the Rautaki Whakamana Whāngote National Breastfeeding Strategy for New Zealand Aotearoa "increasing the exclusivity and duration of breastfeeding is a key determinant of public health and one of the most significant and cost-effective ways to improve equity".

The Mama Aroha 'Breastfeeding Talk Cards' developed by board-certified Māori lactation consultant Amy Wray over 10 years ago (2010) are a well-established, breastfeeding resource within Aotearoa and internationally. The cards are designed to support breastfeeding mothers and health professionals with common breastfeeding challenges. The cards connect visuals and kupu Māori to provide a more visually informative resource that is easy to understand.

The translation of the Talkcards into the first indigenous breastfeeding digital application was a response to the COVID pandemic impact on breastfeeding services. It exemplifies Māori women at the forefront of developing innovative solutions to support whānau with breastfeeding.

The Māmā Aroha App launched on August 2nd, 2021, with the help of Māori tech company Kiwa Digital. Like the TalkCards, the App includes the most essential information and key principles to breastfeeding. It is designed to be visual and informative, making it an easy-to-follow tool for health professionals, mothers and whānau. The content within this application has been approved by the New Zealand Ministry of Health and endorsed by NZBA and Hāpai Te Hauora.

By July 2023 the App had been downloaded nearly 15,000 times almost entirely from Aotearoa and mostly from mobile devices (90%). Download data shows that when people look for the app, they mostly find it and download it. When the App was first launched it was the highest-ranking education app in New Zealand. It is still in top 100 most downloaded education apps in New Zealand. While the app is free for hapū māmā, whānau and health professionals to download and use, its promotion and updating needs ongoing support.

A Health Research Council Activation Grant helped to undertake research about the accessibility, usability, and content, as well as how the app supported the breastfeeding journey. Via kanohi ki te kanohi korero, and online and paper surveys, feedback was gathered from hapū māmā, whānau and health professionals. Findings confirmed that for Māori, a holistic and cultural approach to breastfeeding is central to health and healing from (intergenerational) trauma and strengthening the intergenerational transmission of knowledge and support. Results also confirmed that mobile health resources need to be accurate, freely, and easily accessible, be engaging and interactive, and practical.

"Love that its local. Cool as that it's the first indigenous bf support app"

"I attended wahakura wānanga where there was breastfeeding education and realised that people are out there normalising breastfeeding. They drilled into the tāne to download the app so that the māmā don't need to do everything".

"In neonates my partner lived on the app. [Partner] would make suggestions from the app such as about latching, māmā wellbeing, postnatal depression, how to give māmā down time and that māmā needs to sleep when baby sleeps. He was excited."

"I think I used it religiously in the first few months, because it's got all the information that someone wants to know. And most of its concise. And then, obviously, the diagrams and the pictures to assist. It's got everything from baby to mum to transitions to positions. Yeah, everything you need to know. It's like a one stop shop, which is awesome."

"Beautiful pictures, clear and easy to read, not too many words".

"I use it every day at work. I open it up on my phone when I'm with māmā. I share with māmā that the app can talk to you when you have latched baby on (audio to text function), which they get really excited about. I also talk to dad/partners about it."

The research makes recommendations to inform the design of effective breastfeeding support for Māori particularly around digital health resources. The report recommends:

 to invest in the first indigenous breastfeeding app to update and enhance the content to reflect the most recent feedback from māmā and the health professionals

- a tutorial on how to download, use and navigate the app and its functions.

- further promotion of the app
- additional online support
 - integration into local and national breastfeeding support

- use within training and education for health professionals and peer counsellors
- the creation of new interactive functions that enable whānau to selfdetermine and track their own progress regarding health and wellbeing.

The research findings will be shared with key stakeholders to help secure much needed funding to enable App developers to make the enhancements. We will also seek to collaborate with indigenous groups about the development and effective use of digital resources such as apps to promote health and wellbeing particularly around breastfeeding for indigenous peoples.



Figure 1 Mama Aroha App homepage



Figure 2 QR codes to download Mama Aroha app from the Apple App Store and Google Play