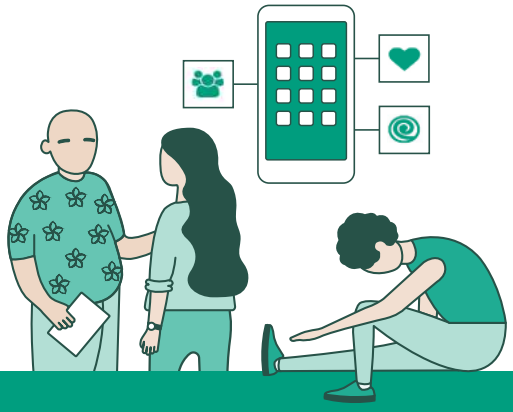
Research Findings Brief

HEALTHIER LIVES | He Oranga Hauora | National Science Challenges



OL@-OR@: A Māori and Pasifika mHealth approach

Key points

- This research project aimed to reduce the risk of non-communicable diseases by developing and testing a culturally tailored, mobile-phone delivered (mHealth) healthy lifestyle support programme for Māori and Pasifika in New Zealand.
- The project took an innovative co-design approach to the research, working in partnership with Māori and Pasifika health providers and communities. The communities decided to develop an mHealth programme (smartphone app and website) known as OL@-OR@, with distinct culturally-tailored versions for Māori and Pasifika.
- To our knowledge, this study is the first to co-design and evaluate an mHealth programme in partnership with Indigenous populations. Community feedback on the co-design approach was uniformly positive, which was reflected in excellent recruitment of study participants and high follow-up rates.
- The OL@-OR@ programme was evaluated in a randomised controlled trial. The results showed that the programme did not result in a significant change in lifestyle behaviour overall but did appear to support behaviour change in those who engaged with it. To achieve meaningful improvements in population health however, comprehensive policies and programmes that include proven structural and system-level changes are required.

LEAD RESEARCHERS

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COMMUNITY PARTNERS

Toi Tangata

The Fono Health & Social Services

South Waikato Pacific Islands Community Services Trust

PROJECT TIMELINE

November 2015 – June 2019

We co-designed and tested an mHealth programme to support healthy lifestyles for Māori and Pasifika in New Zealand.

We found that apps can be a useful tool for motivated individuals but systemic changes are also needed to improve population health.

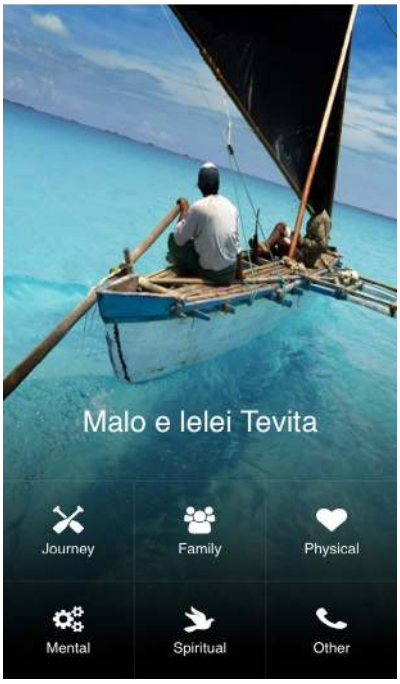
Communities which often do not have positive experiences with mainstream research approaches are more positive about co-design approaches.

What did we produce?

- OL@-OR@ app:
  - + two versions, tailored to Māori and Pasifika communities
  - + allows users to set goals, invite whānau and friends to join them on their journey to achieve positive lifestyle changes, and track progress as individuals and communities
  - + includes healthy eating, physical activity content and tools to support behaviour change
  - + provides regular motivational messages and tips.
- OL@-OR@ website: **welltext.auckland.ac.nz**
- Co-design methods and tools (available for other groups to use)
- OL@-OR@ evaluation result resources:
  - + **Māori result resource**
  - + **Pasifika result resource**
- A video about OL@-OR@: **OL@-OR@ Video**

Android iOS

OL@-OR@ is free to download for **iPhone** and **Android** devices.



Best. Proud Bronze winners in the Public Good & User Experience categories

OL@-OR@ won two bronze awards – in the User Experience and Public Good categories – at the 2019 Designers Institute of New Zealand Best Design Awards.

Organisations interested in investigating how OL@-OR@ can be adapted for use within their community are welcome to contact the OL@-OR@ Kaitiaki Group by emailing Jacqui Grey at **jk.grey@auckland.ac.nz**

Why does it matter?

Supporting and empowering individuals is best practice to bring about behaviour change. The OL@-OR@ programme is a useful tool to support healthy lifestyles, and its culturally tailored design is highly valued by Māori and Pasifika.

To achieve noticeable impact at a population level however, we also need effective policies to create healthier environments that make healthier choices the easier choice for all.

Publications

- **Co-design of mHealth Delivered Interventions: A Systematic Review to Assess Key Methods and Processes** *Current Nutrition Reports* 2016; 5(3):160–167. doi: 10.1007/s13668-016-0165-7
- **Co-designing an mHealth tool in the New Zealand Māori community with a "Kaupapa Māori" approach** *AlterNative: An International Journal of Indigenous Peoples* 2018; 14(1):90–99. doi: 10.1177/1177180117753169
- **A Co-Designed, Culturally-Tailored mHealth Tool to Support Healthy Lifestyles in Māori and Pasifika Communities in New Zealand: Protocol for a Cluster Randomized Controlled Trial** *JMIR Research Protocols* 2018; 7(8):e10789. doi: 10.2196/10789
- **Using codesign to develop a culturally tailored, behavior change mHealth intervention for indigenous and other priority communities: A case study in New Zealand** *Translational Behavioral Medicine* 2018; 9(4):720–736. doi: 10.1093/tbm/iby093
- **Identifying and overcoming barriers to healthier lives** *Pacific Health Dialog* 2018; 21(2):54-66. doi: 10.26635/phd.2018.913
- **A co-designed mHealth programme to support healthy lifestyles in Māori and Pasifika peoples in New Zealand (OL@-OR@): a cluster-randomised controlled trial** *The Lancet Digital Health* 2019; 1(6):e298–307. doi: 10.1016/S2589-7500(19)30130-X

Why is this issue important?

Māori and Pasifika communities in New Zealand are affected disproportionately by high levels of non-communicable diseases such as obesity, heart disease and diabetes.

Existing research shows that mHealth programmes improve motivation, encourage behaviour change and may lead to better health outcomes.

Before this project, co-design had not been used to develop an mHealth intervention for Indigenous and minority populations, and few mHealth programmes had been co-designed from conceptualisation and design through to evaluation.

Co-designing an mHealth programme has the potential to increase its uptake by ensuring it is tailored to specific cultural needs, and thus providing a sense of ownership among target end users.

PHOTO | The OL@-OR@ research team

What did we do?

- The project team developed a smartphone app and website using a co-design process led by community organisations - Toi Tangata, the Fono Health & Social Services, and South Waikato Pacific Islands Community Services.
- The project began with a year-long co-design phase, involving a series of focus groups, hui and fono to design the direction and content of the programme, during which the communities came up with detailed ideas about the content and functionality of the digital offering. Community members were then involved in testing prototype designs and providing feedback.
- The programme was evaluated in a large community randomised controlled trial.
- The community partners participated in all stages of the study, including selection of the intervention, design of the app content and appearance, design of the randomised controlled trial (to evaluate the effectiveness of the programme), interpretation of trial findings, and dissemination activities.

What did we find?

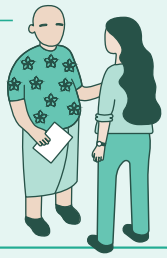
- The results of the trial, published in *The Lancet Digital Health* journal, showed that in both intervention and control groups, there were improvements over time in participants adhering to health-related behaviours, but there were no significant differences between the intervention and control groups. Community coordinators' engagement most likely explains the improvements in the control group even though they didn't receive the intervention.
- Co-design is best practice for working with Māori and Pasifika communities and led to successful app design, high community engagement in the research, and successful trial recruitment and follow-up.
- Participants who engaged with OL@-OR@ and set behaviour change goals showed significant improvements compared with the control group. Findings suggest app-based programmes are not effective for everyone but may support behaviour change in those who engage with them.

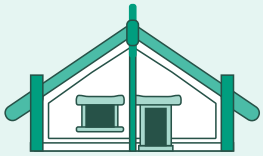
OL@-OR@ model of co-design

Co-design, sometimes called participatory design, is a method for partnering with stakeholders (i.e. end users and community groups) right from the beginning of a research project to ensure the results meet their needs and are usable. To develop an mHealth tool, the OL@-OR@ project team used an adapted co-design model[1] with seven stages:

1. Identify opportunities

Develop a research proposal, form the team, build partnerships, team culture and capacity, and plan project.



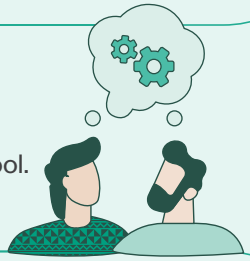


2. Gather information and build understanding

Undertake first round of focus groups to understand what is important to communities.

3. Forming Ideas

Undertake second round of focus groups to start designing mHealth tool.



4. Create prototype

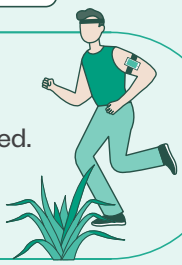
Create initial wireframe prototype and send out to communities for rapid prototype feedback cycles (x3).

5. Develop tool

Create content and finalise tool.

6. Pilot

Test tool and refine it where needed.



7. Evaluate

Undertake cluster-randomised controlled trial to evaluate tool.

Engagement and discussions between Māori and Pasifika communities and the project team occurred at all seven stages of this model.

[1]The OL@-OR@ co-design model was adapted from the Stanford University design thinking process and Bratteteig's participatory co-design cycle (2003).

3 conceptualisation tools were used in the early stages:

1. Profiles

Profiles were created for people with different life circumstances, values, motivations, goals and barriers. This tool was designed to make sure the mHealth tool would meet the needs of a diverse range of people and engagement with it would be high. For example:

Martha's profile

AGE: 30
GENDER: Female
JOB: Secretary / Mother

Martha is a solo mum of two primary school age children who works 30 hours per week.

2. Point of View

Using the profiles, the Point of View tool developed a more specific understanding about what different people need from their point of view. This tool was designed to eliminate the bias of the project team.

Martha's point of view

Martha wants to lose weight and get fit to keep up with the children but finds that she does not have enough time in her day.

3. How Might We...?

Using the points of view, the How Might We...? tool created questions to find out what type of questions the mHealth tool would need to answer.

How might we help Martha to:

- plan meals
- exercise with the children
- find time for herself
- educate herself in healthy eating?

Acknowledgements

We are indebted to our 69 community clusters and 1,451 study participants. We also thank Koda Web Design, who developed the OL@-OR@ wireframes, staff at the National Institute for Health Innovation who were involved in data management, app and web development, and Rangimarie Mules, who provided training in co-design methods.

Research Team

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Community partners for OL@-OR@

About Healthier Lives

National Science Challenges

HEALTHIER LIVES

He Oranga Hauora

Our vision is of Aotearoa New Zealand with equitable health outcomes and a substantially reduced burden of non-communicable diseases.

Tō mātou kitenga kia noho a Aotearoa New Zealand hei whenua he ōrite ngā putanga hua hauora mō te tangata, kia iti iho hoki ngā pīkauranga o ngā māuiui kāore e taea te tuku ki te tangata kē.

The **Healthier Lives – He Oranga Hauora National Science Challenge** is a national collaborative research programme, investigating innovative approaches to the prevention and treatment of four major non-communicable diseases (NCDs) – cancer, cardiovascular disease, diabetes and obesity.

CONTACT US

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University of Otago, Massey University, University of Canterbury, ESR, University of Waikato, AUT, Malaghan Institute of Medical Research, AgResearch, Victoria University of Wellington, University of Auckland

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