UNIVERSITY OF AUCKLAND
Waipapa Taumata Rau
NEW ZEALAND

Exploring Whānau Perspectives on a Chatbot App to Promote Physical Activity and Wellbeing in Adolescents

Project description

This qualitative research study aims to explore the perspectives of parents and whānau on the use of a chatbot application designed to encourage healthy physical activity among adolescents, with the broader goal of supporting their overall wellbeing. As digital health tools become increasingly integrated into everyday life, understanding the cultural, emotional, and practical considerations of whānau is essential for designing effective and inclusive interventions.

Objectives:

-To understand whānau attitudes toward digital tools, particularly chatbot apps, in promoting adolescent health.
-To identify perceived benefits, concerns, and barriers to using a chatbot for encouraging physical activity.
-To gather culturally grounded insights that can inform the design and implementation of chatbot-based health interventions.

The study will employ a qualitative methodology using semi-structured interviews with a diverse sample of parents and whānau. Participants will be recruited through community networks, schools, and health organisations. Data will be analysed thematically using a grounded theory approach, with attention to cultural values, digital literacy, and family dynamics. Kaupapa Māori research principles will guide the study to ensure respectful and meaningful engagement with Māori participants.

The study will generate rich, contextual insights into how whānau perceive the role of chatbot technology in adolescent health promotion. Findings will inform the co-design of culturally responsive, user-friendly chatbot features that align with whānau values and support adolescent wellbeing through increased physical activity.

- Project information

Information about the project, people's roles and responsibilities, and the funding source(s).

Project Identifier
InfoEd ID
Ethics ID

Keywords
adolescent wellbeing
physical activity promotion
digital tools
whānau perspectives
dmp-exemplar

Start date
06/01/2025

End date
05/31/2026

People

Principal Investigator Title

Name		Email	ORCID
Dr	Sarah Hopkins	s.hopkins@auckland.ac.nz	0000-0002-xxxx-xxxx

Project team

Title	Name	Email	Role
	Yvette Wharton	y.wharton@auckland.ac.nz	Associate Investigator
	Laura Armstrong	l.armstrong@auckland.ac.nz	PhD student
	Sarah Hopkins	s.hopkins@auckland.ac.nz	Data Manager

Project roles and responsibilities
1. Laura Armstrong will be responsible for:
- Creating and maintaining the data management plan
- Day-to-day implementation of data management activities including data capture, metadata production, storage and backup.

2. Sarah Hopkins will be responsible for:
- Review of the data management plan
- Oversight of the data management decisions, including planning of data collection, project organisation & storage, metadata and support with data sharing decisions.

Funding

Funding source(s)/scheme

National research funding organisation

Grant/Contract/Award number(s)

PROP-xxx-1234

Financial risk

Activity type

Strategic basic research

FoR codes

- 420603 - Health promotion

SEO codes

- 200203 - Health education and promotion
- 200501 - Adolescent health

Authors

Sarah Hopkins

- Requirements and Considerations

Information about regulatory and contractual obligations, as well as considerations around the ethical and sensitive nature of the research data.

Requirements

Research data security classification

Internal
Sensitive

Research security assessments

Related data policies

The following University of Auckland policies apply to this research project:

- University of Auckland Research Data Management Policy (https://www.auckland.ac.nz/en/about-us/about-the-university/policy-hub/research-innovation/research-data-management/research-data-management-policy.html)
- Research Integrity Policy
- Privacy Policy (and the Privacy Act 2020)
- Intellectual Property Created by Staff and Students Policy

All digital data is subject to the following University of Auckland IT policies and standards:

- Generative AI Usage Standard
- IT Security Policy
- IT Acceptable Use Policy

Considerations

Considerations that apply to this project

Ethics approval required
Indigenous/Cultural
Personally Identifiable Information

Data considerations

- All data management procedures are subject to the University of Auckland Research Data Management Policy
- Human ethics approval will be sought from AHREC (refer to Ethics section below).
- Personally information will be collected and stored for the duration of the study and will comply with the requirements of Privacy Act 2020.

Ethics

Ethics approval number

TBA

Ethics type

Human participants

Ethical considerations and management of data

1. Informed consent

-Informed consent will be sought from participants to publish (share) de-identified data, if appropriate, and to publish study findings.
-No information will be published that would allow for the identification of participants.

2. Protection of participant privacy and confidentiality
-With the exception of consent, all study data will be stored using a unique code and will not contain personal identifiers. All efforts will be made to remove or reduce the storage of any personal identifiers.

3. Storage of data

-Identifiable data will be stored on appropriate University of Auckland-managed research storage, with access restricted to named research group members (and collaborators) using University credentials. Data will be retained for at least 6 years to allow for verification of results and data re-use.
-De-identified data will be stored separately on appropriate University of Auckland-managed research storage, with access restricted to named research group members (and collaborators) using University credentials. De-identified data and research findings may be shared for reuse, with an appropriate license applied.

Rights holders

Engagement and consultation

- Engagement and co-design were held with the subject population during the co-design and development of the physical activity intervention. This included understanding the acceptability of the study outcomes and methodologies.
- Participants have the right to request a lay summary of study results.
- Results will not be made available to participants of any future research conducted using data collected in this study. Participants are informed of this in the PISCF.

Throughout this qualitative research project, we will engage and consult with stakeholders and rights holders, including Māori communities and cultural advisors, to ensure culturally responsive and ethically sound research practices. This engagement will be structured around the following phases:

1. Planning:

- Initial Consultation: The research team have previously engaged with Māori community leaders, cultural advisors, and/or relevant stakeholders to discuss the research objectives, methodologies, and potential impacts.
- Co-design: The research team collaborated with stakeholders to co-design the research framework, ensuring it aligns with kaupapa Māori principles and Vision Mātauranga.

2. Data Collection:

- Ongoing Engagement: The research team will maintain regular communication with stakeholders to update them on the progress and address any concerns.
- Cultural Safety: The research team will ensure data collection methods are culturally safe and respectful, incorporating feedback from Māori advisors and community representatives.

3. Analysis:

- Collaborative Analysis: The research team will involve stakeholders in the analysis process to interpret findings through a culturally informed lens.
- Validation: The researchers will seek validation from Māori advisors and community representatives to ensure the accuracy and relevance of the analysis.

4. Dissemination:

- Feedback and Review: The researchers will share preliminary findings with stakeholders for feedback and review before finalising reports and publications.
- Community Reporting: The research team will disseminate findings in a way that

is accessible and meaningful to Māori communities, including community presentations and culturally appropriate formats.

*Note: the above description is designed as an example. Some or all of these considerations may be relevant for your project.

Vision Mātauranga

This research project is highly relevant to Māori communities as it seeks to explore the perspectives of whānau on the use of a chatbot application designed to promote healthy physical activity among adolescents, including the following considerations:

- The project addresses the health and wellbeing of Māori adolescents, a priority area for both Māori and non-Māori populations.
- By engaging with whānau and incorporating their perspectives, the project ensures that the chatbot app is culturally appropriate and responsive to the needs and values of Māori communities.
- The project empowers Māori whānau by involving them in the research process and valuing their knowledge and experiences.

The project incorporates principles of Vision Mātauranga, which aims to unlock the innovation potential of Māori knowledge, resources, and people to benefit all New Zealanders.

- The project will be guided by kaupapa Māori research principles, ensuring that the research is conducted in a manner that is respectful, culturally safe, and beneficial to Māori communities.
- The research team will collaborate with Māori stakeholders, including community leaders, health providers, and cultural advisors, to ensure that the research design, data collection, and analysis are culturally informed and aligned with Māori values.
- The project will adhere to ethical guidelines that respect Māori data sovereignty and the principles of Te Mana Raraunga, ensuring that data involving Māori participants is managed and used appropriately.
- The project will seek to provide opportunities for Māori researchers and students to be involved in the research, contributing to capacity building and the development of Māori research expertise.
- The findings of the research will be shared with Māori communities through culturally appropriate channels, ensuring that the knowledge generated is accessible and beneficial to those who participated in the study.

By incorporating Vision Mātauranga principles, this project aims to create a culturally responsive and impactful intervention that supports the health and wellbeing of Māori adolescents and their whānau.

Data sovereignty

During the study, data may be collected from participants identifying as Māori. Personal information is a tāonga (treasure) and will be treated accordingly. Formal Māori consultation for this study was completed as part of the intervention co-design and development with [name of group or advisors]. Any recommendations for additional measures to improve Māori rights and interests in relation to data will be acted upon.

The following data sovereignty considerations apply to this project:

1. Participant Data Access Rights applying to all participants
- Participants have the right to access their own data collected during the study. This includes the ability to review, correct, or withdraw their data at any point during the research process and up until [one month after last participation in the study - or specify other duration permitted] . Participants will be informed of these

rights during the consent process, and clear procedures will be established to facilitate data access requests.

2. Data Ownership
Data ownership is recognised as a shared responsibility between the researchers and the participants, particularly when the data involves Indigenous communities. The principles of data ownership will be guided by the following:

- Acknowledging the contributions of participants and ensuring their data is used in ways that align with their values and expectations.
- Providing clear information about how data will be used, stored, and shared.
- Participants and stakeholders involved in earlier co-design of the intervention and research protocols have provided input in to how the data for this study is managed and used (Authority to control).

3. Governance Frameworks
The governance of participant data will be guided by ethical and cultural frameworks that ensure respectful and responsible management of data. This includes:

- Recognising the rights of Indigenous peoples to govern the collection, ownership, use and interpretation of their data. This will be guided by the CARE Principles for Indigenous Data Governance.
- Ensuring that data practices are culturally appropriate and respectful, particularly when working with Māori and Pacific communities. This includes engaging with cultural advisors and following kaupapa Māori research principles.
- Adhering to institutional and national ethical guidelines, including obtaining informed consent, ensuring confidentiality, and protecting the privacy of participants.

Contracts and copyright

Licenses/Agreements/Contracts

Copyright and intellectual property (IP) owners

The Student

Copyright and IP considerations

No restrictions to copyright or IP are stated in the funding agreement.

- Data collection and analysis

Information about the organisation of the research data across the project life-cycle.

Creation and collection

Data creation/collection

Identifiable data:

1.Name and contact details of participants (entered into REDCap for duration of project)

2.Interview audio files, containing potentially identifiable information (.mp3, WAV) ~30-90 mins per session; ~10-100 MB per file depending on quality = 1-5 GB for

20-30 sessions.

De-identified data:

3. Interview transcripts x40 (docx, txt, pdf) ~5000-10,000 words per transcript = ~ 2-5 MB

4. Field notes during interviews. Observational and reflective data (docx, txt, pdf) ~1-3 pages per session = ~50-100 pages total.

5. Coding and thematic analysis files (NVivo - .nvp or Excel - .xlsx) <100MB total

6. Participant metadata, including participant ID, demographic info, interview date (excel; .csv) = <1MB

Non-digital data/physical artefacts

1. Handwritten field notes taken during or after interviews (notebook; paper)

Data source(s)

Primary

Data source considerations

Data will be obtained from direct communication with the participant (Primary).

The participant population will consist of parents, caregivers and other whānau of adolescents aged 12-18 years. Participants will be recruited from diverse communities across Aotearoa New Zealand, with a focus on ensuring representation from Māori, Pacific and other culturally diverse groups to reflect the population's demographic makeup and to support culturally responsive research practices.

The study will aim for a purposive sampling approach to ensure diversity in:

-Ethnicity and cultural background
-Socioeconomic status
-Geographic location (urban, rural and regional)
-Experience with digital health tools.

Metadata and documentation

- A README will be created and maintained and will be stored with the research data. This will contain agreed project-level, dataset-level and methodological metadata.
- A codebook will be created and stored with the data, including a list of codes, definitions and themes used in analysis.

- The digital data will be organised in a simple hierarchical folder Structure: Project

> 01-admin, 02-data-collection, 03-data-processing, 04-analysis, 05-outputs, 06-metadata

- General File naming convention [date]-[creator]-[subject].[ext] for docs, [project]-[data-type]-[outcome/participant ID]-[raw/date].[ext] for data (details maintained in project README).

Discipline-related metadata standard(s) or schema(s)

The following metadata schemas will be used for this project:

-DDI Codebook for detailed qualitative data documentation

-CARE Principles/Traditional Knowledge (TK) Labels for ethical and cultural metadata (especially for Māori and Pacific data)

Storage

Size/amount of data

100GB - 2TB

Data storage location(s)

Research Drive (University-approved) Other

If other, please provide further details:

REDCap

Software and Equipment

Software and Equipment used to collect/create the data

- REDCap will be used to collect identifiable and de-identified study data during this study. REDCap is a password-protected secure web application hosted on the University of Auckland's server.
- Interview Audio files will be recorded using a hand-held recording device (in person) or recorded via Zoom using an authenticated session (online interviews).

Software and equipment used to manipulate/analyse the data

- A University-approved transcription service will be used to convert audio recordings of online and in person interviews to initial transcripts, before being checked manually by the researcher.
- NVivo will be used to analyse themes arising from semi-structured interviews.

- Sharing and access

Information about management of and access to the data, now and in the future.

The primary Data Owner is:
Sarah Hopkins

The primary Data Custodian is:
Sarah Hopkins

During the project

Data access and sharing during the project
Access to active research data during the study will be strictly limited to the core research team, which includes the named student researcher, primary supervisor (Principal Investigator), and co-investigators. All team members will be affiliated with the host institution and will have completed training in research ethics, data privacy, and cultural safety.

Data will be stored on secure, institutionally managed servers with access restricted through individual user authentication (e.g., password-protected logins and two-factor authentication). No data will be stored on personal devices or unapproved cloud services. Access permissions will be managed by the Principal Investigator. Any changes to access rights will be documented and reviewed on a regular basis.

Identifiable data (e.g., participant details, raw audio recordings) will be stored separately from de-identified data (e.g., transcripts, metadata) to ensure participant confidentiality. Only the student researcher and Principal Investigator will have access to identifiable data.

For data involving Māori or Pacific participants, access will also be guided by kaupapa Māori research principles and Indigenous data sovereignty frameworks. Cultural advisors or governance groups may be consulted to ensure appropriate handling and use of culturally sensitive data.

After the project

Data access and sharing after the project
The de-identified transcripts for this study may be shared in a de-identified format to ensure participant confidentiality and privacy. Data sharing will be conducted in accordance with institutional policies, ethical guidelines, and participant consent.

Data will be shared under the following conditions:

- Explicit consent has been obtained from participants for data sharing.
- Data will be de-identified to remove any personal identifiers.
- Data will be shared only with researchers who have obtained ethical approval for their studies.
- Data sharing agreements will be established to ensure proper use and protection of the data.

Special attention will be given to cultural and ethical considerations, particularly for data involving Māori and Pacific participants:

- Data sharing will be guided by kaupapa Māori research principles and Indigenous data sovereignty frameworks.

- Cultural advisors or governance groups will be consulted to ensure appropriate handling and use of culturally sensitive data.
- Data involving Māori participants will be managed in partnership with Māori, and decisions about data use and sharing will be made collaboratively.

Applicable minimum retention period

[6 years] All research data, retention period from completion of the activity.

Data retention and deletion

All research data will be retained for a minimum of 6 years after the completion of the study, in accordance with institutional and funding body requirements. This duration ensures that the data is available for verification, replication, and potential follow-up studies.

During the retention period, data will be stored on secure, institutionally managed research storage. Identifiable data will be stored separately from de-identified data to maintain confidentiality. Access to stored data will be restricted to authorised personnel only, as outlined in the Data Access section.

After the retention period, all data will be securely disposed of using approved methods. Digital data will be permanently deleted using secure deletion tools that ensure data cannot be recovered. These procedures will be documented and verified to ensure compliance with ethical and legal standards.

- Publish and Report

Plans to publish research data arising from this project, including considerations related to Open Access and licensing.

Data accessibility

A metadata record about this project will be published to Institutional Figshare. The purpose of this metadata publication is to ensure that the research data is discoverable, accessible, and (potentially) reusable by other researchers, while respecting the privacy and confidentiality of our participants. The metadata record will be published in the institutional repository upon completion of the data collection and initial analysis phases, and after ensuring that all ethical and cultural considerations have been addressed. This timing allows us to provide accurate and complete information about the project while safeguarding participant confidentiality.

If appropriate, de-identified datasets may be published on Institutional Figshare.

Data publication(s)

A list of DOIs for publication of a metadata record and/or de-identified dataset will be added, once published.

Creative Commons and other licencing

De-identified data, if appropriate consent is provided, will be published to Institutional FigShare with a CC-BY-NC 4.0 license applied to selected datasets.