

Title: AI-Enhanced Digital Health Support of Community-Based Heart Failure Management for Pacific Peoples – A Feasibility and Acceptability Study

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Background:

Heart failure inequities in Aotearoa New Zealand are stark and unacceptable. Māori and Pacific peoples are hospitalised more often, readmitted more frequently, die at higher rates, and develop HF at younger ages than non-Māori, non-Pacific populations. HF is a chronic, relapsing syndrome that responds well to ongoing community-based management, yet gaps in continuity of care following hospital discharge occur. Empowering patients to accurately interpret symptoms and seek timely care can reduce unplanned readmissions and improve long term outcomes. Pacific patients face additional language and cultural barriers in accessing support. Digital health and artificial intelligence (AI)-enabled tools may strengthen symptom monitoring, medication management and communication with providers; however, limited research has explored Pacific perspectives. Phase 1 of a codesign programme examined the acceptability and feasibility of AI-enhanced digital support for community-based HF care.

Method:

This qualitative study was guided by Pacific methodologies, including the Tongan Kakala framework. Semi-structured interviews were conducted with seven Pacific HF patients/family and nine HF providers across hospital and community settings. Data were analysed using a general inductive approach.

Results:

Preliminary results are presented. Patients and families were cautiously open to digitally-mediated services, particularly where access to culturally responsive care and navigation was challenging. Providers expressed conditional support, emphasising clinical safety and governance, evidenced-based and patient-centred design and service integration.

Conclusion:

AI-enhanced digital HF support may be acceptable for Pacific communities when culturally grounded and codesigned with patients, families and providers. Digital tools must strengthen trusted relationships between people and services to enable effective management.