

Original Research

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Addressing the podiatry needs of Pacific *matua* through community-based service delivery – prioritising collaborative engagement approaches

El-Shadan TAUTOLO,¹ Fa'asisila SAVILA,² Wendy WRAPSON,³ Stephen NEVILLE,⁴ Valerie WRIGHT-ST CLAIR,⁴ Ofa DEWES,⁵ Janis PATERSON,¹

ABSTRACT

Introduction: Pacific peoples in Aotearoa New Zealand (NZ) experience poorer health and greater unmet health needs than the non-Pacific population, often due to financial or language barriers, monocultural assumptions and practices of healthcare professionals. Within the plethora of health and social issues faced by Pacific *matua* (older Pacific people), podiatric (foot) health is increasingly recognised as a vital component for health and wellbeing for older Pacific people. This study used a co-design approach to investigate podiatric health amongst a cohort of Pacific *matua* based in Auckland, NZ.

Methods: Seventy-eight Pacific *matua*, recruited from amongst the four largest Pacific ethnicities in NZ, participated as co-researchers in the project. *Talanoa* and participatory action research methods were used by the team, which comprised Pacific *matua* representatives, university-based podiatry staff and students and academic researchers, to co-design and deliver sessions on footcare assessment and maintenance.

Findings/outcomes measure: Overall, lower limb health was good; however, 13 Pacific *matua* required follow-up for thickened toenails and other minor issues such as dry skin. Two Pacific *matua* were referred to their family physician for further assessment of suspected melanoma underneath the toenail.

Conclusions: Regular podiatric assessments and maintenance sessions were highlighted as important events for Pacific *matua*. The fundamental requisites for effective community-academic partnerships with Pacific *matua* are grounded in collaborative processes, regular consultation, and sustained engagement.

Key words: Pacific, podiatry, public health, co-design, community-based healthcare, engagement

INTRODUCTION

The New Zealand (NZ) Pacific population, representing over 8% of the total NZ population, includes a diversity of cultures and migration histories. Most originate from Samoa, Tonga and Fiji, as well as the Cook Islands, Niue and Tokelau – three nations whose residents also hold NZ citizenship and unrestricted settlement rights.¹ The Healthy Pacific Grandparents (HPG) Study conducted in Auckland sought to investigate matters considered important to older Pacific people (*matua*) and their participation in social and health system settings.

2. The University of Auckland, Pacific Health Section, Faculty of Medical & Health Sciences, Auckland, NZ.
3. Auckland University of Technology, National Institute for Public & Mental Health Research, AUT North Campus, Northcote, Auckland, NZ.
4. Auckland University of Technology, Centre for Active Ageing, AUT North Campus, Northcote, Auckland, NZ.
5. The University of Auckland, School of Nursing, Department of Molecular Medicine & Pathology, and Maurice Wilkins Centre for Molecular Biodiscovery, Faculty of Medical & Health Sciences, Auckland, NZ.

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Corresponding author: El-Shadan Tautolo
dtautolo@aut.ac.nz

1. Auckland University of Technology, AUT Pacific Health Research Centre, AUT South Campus, Manukau, Auckland, NZ.

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NZ research reveals Pacific people have poorer health and greater unmet health needs than the non-Pacific population,² and their interactions with health service providers may be constrained due to financial or language barriers, and mono-cultural assumptions and practices of healthcare professionals.^{3,4} However, Pacific *matua* acknowledge social networks and interaction as a key mechanism for maintaining wellbeing and resilience in older age.^{4,5} In addition, Pacific people have traditionally demonstrated high levels of social connectedness, frequently having extensive family networks and taking an active role in Pacific community groups, church life and volunteering. Community groups have been considered by some Pacific *matua* to be a village away from the islands⁶ where Pacific families embrace social connections, maintain social support and where cultural and religious needs are met.^{7,8} This observation suggests these community groups and settings as an ideal platform for engagement of Pacific *matua* with research.

Within the plethora of health and social issues faced by Pacific *matua*, podiatry is increasingly recognised as a vital component for health and wellbeing in the integrated healthcare provided for older Pacific people.⁹ Recommendations suggest service recipients should understand the role of, and have access to, a podiatrist.¹⁰ Increasing numbers of older patients with foot complications are at significant risk for impaired mobility, functional incapacity and negative psychosocial impact.^{10,11} However, despite this evidence, podiatry support is frequently underused and under-resourced throughout many communities in NZ, with few specialist podiatry services available. Moreover, people of Pacific ethnicity are characterised as having “high risk” of poor lower limb health by podiatric care professionals,^{9,10} likely due to a high rate of diabetes in the Pacific community, and are less likely to be able to access podiatry support. Podiatric health complications, such as diabetes foot ulcers, can mean significantly reduced quality of life with physical pain, mental distress and social anxiety.¹¹

This article describes the use of a co-design approach to identify an important health issue, and the process involved in implementing a culturally appropriate knowledge and health education programme to assess this health issue (podiatric health) and improve healthcare maintenance among a group of older Pacific people.

METHODS

This project based at the Auckland University of Technology (AUT) South Campus in Manukau, NZ, adopted a participatory action research approach. This process engaged Pacific *matua* in a leadership role as co-researchers, and facilitated their involvement in the research design and the implementation of project recommendations, as well as the opportunity to take ownership of the research processes and questions.¹²

A Pacific-designed research method, *talanoa*,¹³ was used as an approach to raise, discuss and identify priority issues affecting healthy ageing among the older Pacific community. *Talanoa*, meaning “a conversation, a talk, an exchange of ideas or thinking”,¹³ is a Pacific-specific methodology of face-to-face interaction. It facilitates the researcher and participant to first develop a personal relationship characterised by respect and reciprocity, thereby engendering a climate conducive to subsequent sharing of authentic knowledge and the co-creation of solutions.¹⁴ Adhering to the *talanoa* process assisted the research team and co-researchers to identify podiatry as a significant area of focus for this study. Ethical approval for this study was sought and received from the Auckland University of Technology Ethics Committee (AUTEK 16/465).

Recruitment and community collaboration

A collaborative community-academic relationship was established with Vaka Tautua, a Pacific-specific community service provider. Vaka Tautua was tasked with negotiating recruitment and the logistics of data collection with four different (Samoan, Tongan, Cook Islands Māori, Niuean) ethnic groupings of older Pacific people. Members of these groups regularly gather to socialise, participate in cultural activities and learn about aged care, and utilise these encounters as an important part of their weekly social schedule, and members are comfortable engaging in the company of peers. All attendees of the four ethnic groups were invited to be co-researchers in the study, and, in line with participatory action approaches, co-researchers were given the opportunity to take ownership and leadership of the research processes and questions.

Ninety co-researchers, representing each of the different ethnic groups mentioned above, took part in *talanoa* group discussions to discuss what defined healthy ageing for older Pacific people. Representatives from each ethnic group were then nominated to function as lead co-researchers and worked with the research team

to identify priority issues for healthy ageing, and to recommend and negotiate solution-building strategies to address these issues. Action plans to implement these solutions using existing resources and collaborative networks were then organised and facilitated with the research team.

In accordance with best-practice research guidelines for working with Pacific communities,¹⁵ all researchers involved in the data collection *talanoa* were of the same ethnic background as the Pacific elders. All research materials were translated and available in both English and Pacific languages, and researchers were fluent in the appropriate Pacific language to be able to translate or conduct discussions in the relevant language if necessary.

Podiatry intervention design

Following the collaborative discussions with older Pacific people, the procedures and knowledge of foot care maintenance were identified as an ongoing health challenge for these co-researchers. Seemingly simple tasks, such as regular trimming of toenails, were often found to be difficult because of reduced physical flexibility, dexterity and failing vision, but also due to a lack of knowledge of appropriate foot health maintenance.

An action plan to implement a solution to the issue of foot care maintenance was developed and facilitated with the wider research team, and utilised existing resources and networks to enable rapid development and delivery.

Podiatry education and assessment sessions were developed by AUT Podiatry staff utilising their experience delivering sessions to other groups during clinical placement, and were scheduled for delivery during the meetings of each ethnic group of older people held at their respective community venues. The AUT Department of Podiatry arranged for 48 second-year podiatry students to attend one of the four groups. A 2-hour session was undertaken with each of the four groups, and involved AUT podiatry students, an AUT podiatry clinical educator and the research project manager. Research assistants who were fluent in Pacific ethnic languages assisted and supported the podiatry team with communication during their assessment procedures.

Podiatry assessment

The first 30 minutes of the session involved the delivery of basic information about podiatric health, potential signs and symptoms of compromised foot health and finally some information regarding the assessment process and what the physical examination would

comprise. Following this, participants were invited to undergo a basic footcare assessment with podiatry students. General foot health was examined using handheld vascular doppler, monofilament and reflex hammer tests. Basic demographic information regarding the numbers of participants in each ethnic group and the numbers requiring podiatric follow-up or referral were collected by the research project manager. AUT regulations for providing treatment offsite (e.g., consent, patient record confidentiality) prohibited delivery of podiatric treatments. Consequently, AUT podiatry students were limited to providing an assessment of each individual's foot health only as part of the podiatry intervention. However, upon conclusion of the assessment, participants were offered a summary report, and those that required further follow-up were advised to seek further advice and support from their family doctor or podiatrist.

RESULTS

Podiatry assessment and footcare maintenance

Seventy-eight Pacific elders, with an age range of 55–85 years old, participated in the assessments (see Table 1).

Both doppler and reflex tests were administered to participants. Doppler is a non-invasive method used to estimate the blood flow through blood vessels by bouncing high-frequency sound waves (ultrasound) off circulating red blood cells. It can help diagnose many conditions, including poorly functioning valves in leg veins, which can cause blood or other fluids to pool, also referred to as venous insufficiency. Likewise, reflex or range of motion (ROM) tests are a simple method of assessing whether lower limb movement is normal or restricted, providing potential indication of lower limb health. Overall, lower limb health among the cohort was deemed good, based on doppler, reflex and ROM results.

However, 13 co-researchers required follow-up via locally based podiatrists for thickened toenails and other minor issues such as dry skin. Two other co-researchers were referred to their general practitioner for further assessment of suspected melanoma underneath the toenail.

DISCUSSION

For this study, older Pacific co-researchers articulated podiatric health knowledge and footcare maintenance as ongoing challenges to healthy ageing among Pacific communities in Auckland. During the *talanoa* group discussions, co-researchers recounted missing appointments

with healthcare providers, including podiatrists, for various reasons including: sickness, forgetfulness, cost and a lack of transport or support, especially where mobility or language assistance was required. Missed appointments often required reassignment to a waiting list,

rearranging logistics for another appointment, and delayed care. This disruption to healthcare can also have economic implications for health delivery services, and has been the subject of recent efforts to improve the situation, particularly for Pacific health consumers.¹⁶

Table 1: Summary information for Healthy Pacific Grandparents podiatry study participants.

Group	No. assessed	No. requiring podiatric follow-up	No. given GP referral	No. male participants	No. female participants
Cook Islands	26	13	1	8	18
Niuean	12	0	1	2	10
Samoan	20	1	0	6	14
Tongan	20	7	0	4	16
Total	78	21	2	20	58

These complex health needs for older Pacific peoples provide a strong impetus for innovation in ways of working in the health sector. Two factors driving the need for innovation are the increased health needs as a result of an ageing population and an increase in non-communicable diseases. Alongside this mandate, the desire for culturally congruent podiatry assessments amongst members of this study suggests that the provision of outpatient footcare assessments in ethnic-specific community settings could be an effective method for addressing podiatric health challenges.¹⁷

The neglect of podiatric illnesses can result in serious complications requiring medical/surgical intervention. Previous research exploring foot health reported early referral and timely intervention for potentially serious foot lesions reduced the need for amputation by up to 80%.⁹ Similarly, the NZ Ministry of Health notes that effective, well-integrated and timely podiatric intervention in diabetes and other limb disease is a major factor in the reduction of amputations, the prevention of other complications and the improvement in the quality of an individual's life.^{10,17}

The innovative partnership between co-researchers, a Pacific community social service provider (Vaka Tautua) and AUT researchers, podiatry staff and students led to the development and implementation of an effective health education and assessment programme to address the issue of podiatric health in older

Pacific people. This process of developing an effective approach to meeting their podiatric needs has real potential for replication and delivery within other Pacific ethnic and migrant groups. This confidence is reinforced by the use of culturally appropriate research frameworks and methods (*talanoa*), alongside the participatory action approach of the project, whereby co-researchers were able to identify their priorities and then be part of the design and development of solutions to address them. Pursuing a similar process is likely to be successful with other ethnic minority groups.

AUT podiatry staff considered the programme an extremely valuable tool for podiatry students in terms of providing experience working and engaging with high-needs groups or individuals. Experiential learning is highlighted in contemporary literature as an effective training tool for healthcare students, particularly for those working with Pacific people and communities.¹⁸ In addition, students gained an appreciation of the potential linguistic barriers associated with treating different ethnic groups, and were also exposed to Pacific cultural norms of social engagement in a community setting. Given the increasing health needs of Pacific people and the escalating shortage of Pacific healthcare workers, the imperative for all healthcare staff to practise cultural safety is even more apparent,¹⁹ and highlights the value of this initiative.

Finally, our Pacific co-researchers appreciated being valued, engaging with younger people (the AUT staff and students) and learning new ways of self-care. This reflects similar research findings for Pacific communities, which highlight the importance of positive health interactions for encouraging ongoing engagement or uptake, and improving the health-related decisions of the wider family unit.²⁰

Limitations

Although the co-design process was useful in identifying priority health issues for our older Pacific co-researchers, the team were unable to utilise the Pacific *matua* representatives as part of the education delivery process. This should be a consideration for future podiatry assessments utilising this co-design process, thereby providing an opportunity to enhance the skills and competencies of older Pacific co-researchers.

Due to the timeframe of the project, the team were unable to complete a formal evaluation of the intervention. Despite the absence of this valuable information, the project does demonstrate the feasibility of a co-design approach when working with older Pacific communities, and particularly when exploring their health needs.

CONCLUSION

The high demand for podiatry assessments from study members suggests that provision of outpatient healthcare assessments in ethnic-specific community settings could be an effective method for addressing ongoing health challenges and preventing serious complications, particularly for older population groups. The project identified collaborative consultation and engagement processes as fundamental requisites for effective community-academic partnership. Moreover, they are vital for the development of effective solutions to enable healthy ageing within older Pacific communities

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REFERENCES

1. Statistics New Zealand, Ministry of Pacific Island Affairs. Demographics of New Zealand's Pacific population. Wellington, New Zealand; 2010. [2025 Aug 6]. Available from: <https://www.stats.govt.nz/assets/Uploads/Reports/Demographics-of-New-Zealands-Pacific-Population-2010/Demographics-of-New-Zealands-Pacific-Population-June-2010.pdf>
2. Ministry of Health. Annual Update of Key Results 2014/15. Wellington, New Zealand: Ministry of Health; 2015. [2025 Aug 6]. Available from: <https://www.health.govt.nz/statistics-research/surveys/new-zealand-health-survey/publications/201415-survey-publications>
3. Ministry of Health. Tupu Ola Moui: Pacific Health Chart Book 2012. Wellington, New Zealand: Ministry of Health; 2012. [2025 Aug 6]. Available from: <https://www.health.govt.nz/publications/tupu-ola-moui-pacific-health-chart-book-2012>
4. Tamasese TK, Parsons TL, Waldegrave C. Pacific perspectives on ageing in New Zealand. Wellington, New Zealand: Family Centre; 2014. [2025 Aug 6]. Available from: https://www.massey.ac.nz/massey/fms/Colleges/College%20of%20Humanities%20and%20Social%20Sciences/Psychology/HART/publications/reports/Pacific_Elders_NZLSA_2014.pdf?6A68389EA6EAB37148E4AE22BA963822
5. Wiles J, Wild K, Kerse N, Allen R. Resilience from the point of view of older people: 'There's still life beyond a funny knee'. *Soc Sci Med*. 2012;74(3):416-424.
6. Macpherson C. Pacific Islands identity and community. In: Spoonley P, Pearson D, Macpherson C, eds. *Nga Patai: Racism and ethnic relations in Aotearoa/New Zealand*. Palmerston North: Dunmore Press; 1996. p. 124-158.
7. Anae M. The new Vikings of the sunrise: New Zealand-borns in the information age. In: Spoonley P, Macpherson C, Anae M, eds. *Tagata o te Moana Nui: The Evolving Identities of Pacific Peoples in Aotearoa*,

- New Zealand. Palmerston North: Dunmore Press; 2001. p. 101-121.
8. Tiatia J. Caught between cultures: a New Zealand born Pacific Island perspective. Ellerslie: Christian Research Association; 1998.
 9. Simmons D, Scott D, Kenealy T, Scragg R. Foot care among diabetic patients in south Auckland. *N Z Med J*. 1995;108(996):106-108.
 10. Ministry of Health. Community health, transitional and support services – Allied health services – podiatry for people with at-risk / high-risk feet. Tier level three service specification. New Zealand: Ministry of Health; 2013. [2025 Aug 6]. Available from: https://www.tewhātuora.govt.nz/assets/Our-health-system/National-Service-Framework/Service-specifications/Community-health-transitional-and-support-/T3_CH_Podiatry_for_People_with_At_Risk_or_High_Risk_Feet_202409.pdf
 11. Snyder RJ, Hanft JR. Diabetic foot ulcers-effects on quality of life, costs, and mortality and the role of standard wound care and advanced-care therapies in healing: a review. *Ostomy/wound management*. 2009;55(11):28.
 12. Tautolo E, Wrapson W, Paterson J, et al. Healthy Pacific grandparents: a participatory action research project exploring ageing well among Pacific people in New Zealand. *Self & Soc*. 2017;45(2):134-148.
 13. Vaiolleti TM. Talanoa research methodology: A developing position on Pacific research. *Waikato Journal of Education*. 2006;12.
 14. Vaka SBT, Huntington A. Getting to the Heart of the Story: Using Talanoa to Explore Pacific Mental Health. *Issues in Mental Health Nursing*. 2016;37(8):537-544.
 15. Health Research Council of New Zealand. Pacific Health Research Guidelines. Auckland, New Zealand: Health Research Council of New Zealand; 2014. [2025 Aug 6]. Available from https://www.hrc.govt.nz/sites/default/files/2019-05/Resource%20Library%20PDF%20-%20Pacific%20Health%20Research%20Guidelines%202014_0.pdf
 16. Ministry of Health. Improving the System: Meeting the challenge – improving patient flow for electives. A Toolkit for District Health Boards. Wellington, New Zealand: Ministry of Health; 2012. [2025 Aug 6]. Available from: <http://www.health.govt.nz/system/files/documents/publications/improving-the-system-toolkit-for-dhbs.doc>.
 17. Diabetes NZ. Economic and social cost of type 2 diabetes. Wellington, New Zealand: Diabetes NZ; 2021. [2025 Aug 6]. Available from: <https://ourarchive.otago.ac.nz/esploro/outputs/report/Economic-and-Social-Cost-of-Type/9926478578501891>.
 18. Sopoaga F, Zaharic T, Kokaua J, Covello S. Training a medical workforce to meet the needs of diverse minority communities. *BMC Med Educ*. 2017;17(19).
 19. Ape-Esera L, Nosa V, Goodyear-Smith F. The Pacific primary health care workforce in New Zealand: What are the needs? *J Prim Health Care*. 2009;1(2):126-133.
 20. Talemaitoga A. Upfront: The health of Pacific peoples in Aotearoa is everybody's business. *Best Practice Journal*. 2010;32.