



## AN INTERVENTION TRIAL FOR MAORI AT RISK OF DIABETES-RELATED LOWER LIMB PATHOLOGY

### A SUMMARY OF THE RESEARCH FINDINGS

#### ABOUT THE STUDY

##### RESEARCH AIM

The purpose of the research was to improve lower limb (that is foot) outcomes for Māori who have diabetes. The aims were to:

- Develop, implement and assess a lower limb intervention for Māori with diabetes, that was in-line with the hopes of, and acceptable to, Māori.
- Create new knowledge to inform policy, funding decisions, and health service delivery.
- Provide a base for further research.

##### RESEARCH PROCESS

A Maori approach was used to test a foot care intervention in four clinical settings in the community. The control group received usual care and was compared with another group that received the intervention.

Literature, 20 key informant interviews and three focus groups with nine people diagnosed with diabetes and foot problems as a result of diabetes provided information to develop the podiatry intervention.

##### PARTICIPANTS

The intervention group had 60 Māori participants with 50 (40%) staying until the end of the study, and the control group had 65 Māori participants with 47 (72%) staying until the end of the study.

The participants came from four clinic settings – the control group (those receiving usual care) came from two clinics, and the intervention group came from the other two clinics.

##### THE INTERVENTION

Over a period of one year, those in the **intervention group**:

- Were clinically assessed using an enhancement of the Wellington Independent Practice Association (WIPA) Podiatric Tool;
- Received a health plan adapted to the needs of each person. These plans included:
  - professional foot care treatment and education,
  - skin creams and merino socks, and
  - advice on footwear;
- Were helped to access other health professionals and social services, as needed;
- Received reminder calls;
- Transport, out of usual office hours appointments or home visits were available if needed;
- Were invited to a diabetes self-management wānanga; and
- Received podiatry care in a timely manner when needed.

##### HOW THE INFORMATION WAS COLLECTED & ANALYSED

Interviews and foot assessments were conducted at the beginning of the study (before the intervention) and 12 months later for both groups. The questionnaire included questions about the person and where they lived, their diabetes history, use of health services, diabetes knowledge, health status, health behaviours, and podiatry (foot) measures.

The interviews were analysed for common themes.

The questionnaires and foot assessment data were statistically analysed.



## THE FINDINGS

### INTERVIEWS

#### BARRIERS TO GOOD FOOT CARE FOR MĀORI

Participants reported barriers to getting good foot care that led to foot problems were generally related to poor quality care and information. The barriers were:

- **Stigma** that occurred when health professionals treat Māori with disrespect, and when Māori also had negative stigma about themselves.
- **Unhelpful contexts** related to cultural beliefs, beliefs about diabetes, and including personal, whānau, community, work and clinical contexts.
- **Lack of information and understanding**, with information not always being trustworthy or adequate.
- **Unhelpful structural processes and approaches** to care that excluded Māori beliefs and practices. A lack of Māori providers, lack of ongoing funding, the cost of good foot care services, immobility, and the lack of service coordination were all unhelpful.

#### ENABLERS TO GOOD FOOT CARE FOR MĀORI

What worked best for Māori to support good foot care and reduce foot problems related to diabetes include:

- **Relevant and responsive health care practices for Maori** where Māori were listened to and the services included foot care informed by Māori knowledge, and practices. Health professionals having sound relationships with Māori were crucial for services to be acceptable and empowering.
- **Helpful contexts** promote self-management of diabetes and the wellbeing of Māori individuals and their whānau. Individual health plans included the contexts of the individual, their whānau, community, work and the clinical setting.
- **Focused education and information programmes** were culturally, locality, age and gender appropriate, and adequately answer the questions Māori have.
- **Redesigned health services** so sustainable integrated and coordinated quality foot care services for Māori with a focus on prevention were offered.

### QUESTIONNAIRES & FOOT ASSESSMENTS

- Knowledge about diabetes was better for those in the intervention group at the 12-month follow-up.
- Many of those in the intervention group were referred to other health services as part of their individual health plan.
  - This may have been because of a lack of information about services available to help them with their diabetes and the complications of diabetes.
- 64% of the participants in the control group had never seen a podiatrist (a specialist health professional who cares for those with foot problems).
- There were some problems with how the foot assessment was measured in the study, which meant some information was not as useful as it could have been.

### RECOMMENDATIONS

A number of recommendations were made to improve the effectiveness, appropriateness and relevance of foot care services for Māori to reduce the lower limb amputations. The recommendations relate to:

- Inclusion of Māori values, beliefs and practices into foot care services for Māori,
- The creation of supportive approaches for healthcare and education,
- The adoption of preventive foot care services, and improved culturally responsive education activities and interactions with Māori,
- Improving the practice of health professionals to be culturally responsive,
- The use of wānanga in patient education.
- Recruiting more Māori into podiatry.
- Undertaking further research in this area.

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