Research Proposal for Raukura Hauora o Tainui

Pilot study: The effect of targeted career interventions on health outcomes in unemployed and underemployed Māori patients incorporating the Meihana Model

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Hypothesis:

That effective, targeted, and culturally appropriate career interventions improve health outcomes in the Meihana Model of Hauora Māori – physical health, mental health, spiritual health, and whanau health.

Lay Summary

Māori in Aoteoaroa New Zealand, particularly young adults, are disproportionately impacted by inequitable rates of unemployment and under-employment, which has been shown to have significant long-term impacts on physical and mental health and well-being. Targeted and individualised career interventions have proven efficacy in improving individuals' career clarity, self-efficacy, and optimism for the future, employability and employment rates. A logical conclusion would be to postulate that targeted career interventions for unemployed or under-employed Māori should result in improved health outcomes, but research on this correlation is scarce worldwide, much less in New Zealand. We propose a study where under-employed or unemployed Māori patients from a high needs semi-urban area are provided with targeted and individualised career interventions, using best current practice in culturally safe career guidance, and then evaluate their outcomes using the framework of the Meihana Model – physical, mental, spiritual and whānau health. We hypothesise that targeted career intervention will prove effective at improving Māori health and well-being across a range of metrics. This pilot study aims to investigate the practicalities of delivering a career intervention service to the target population, explore methods of engagement with the targeted population, and determine scalability for potential future power studies.

Background

Māori, the recognised first inhabitants and *tangata whenua* of Aoteoaroa New Zealand, are significantly over-represented in statistics such as unemployment or under-employment, with resulting negative impacts on their health and well-being. As of June 2021, unemployment among Māori was 7.8%, double the national rate of 3.9% (MBIE, 2021 Sep 6). Furthermore, Māori under-utilisation rates of 17.1% significantly exceed those of Pacific Peoples (14.4%), Europeans (9.2%) and Asians (9.1%). Māori wāhine are significantly more likely to experience under-utilisation in the workforce (20.2%) than Māori tāne (14.8%). These statistics are also reflected in the not in employment, education or training (NEET) statistics for youth, where 22.4% of young Māori wāhine and 13.2% of young Māori tāne are not engaged in the workforce or education, compared to 8.8% of Europeans and 6.0% of Asians (MBIE, 2021 Sep 6).

Māori are also over-represented in Aoteoroa New Zealand's health statistics. In the most recent survey of New Zealand health in 2021, Māori reported significantly higher rates of psychological distress (15.9%) than Europeans (9.1%) or Asians (7.0%); were more likely not to report good health (17.9%) than the population average (12%); were more likely to smoke (25.7%) than the average population (10.9%); had high rates of obesity (50.8%)

compared to Europeans (31.9%) or Asians (18.5%); and were less likely to report their children being in good health than parents of other ethnicities (Ministry of Health, 2021 December).

The impacts of unemployment on health have long been established in the literature. Unemployment is correlated with increased mortality for individuals and their families, particularly from suicide and lung cancer, and increased rates of family breakdown, psychological distress and physical illnesses (Wilson & Walker, 1993). Despite adjusting for socioeconomic variables and underlying health conditions, redundancy has been shown to double the mortality of individuals in the five years following loss of employment (Dorling, 2009). Studies have also shown that despite welfare state regimes in western countries such as New Zealand, unemployment results in higher rates of poor health and this effect is particularly marked for women (Bambra & Eikemo, 2009). There is growing recognition that effective, high quality career guidance has an important role to play in helping individuals to navigate career transitions across the lifespan (Hooley & Rice, 2018). It is already widely recognised at a policy level that career guidance improves the efficiency of labour markets, by better aligning individual talents with employer requirements, and by addressing structural causes of unemployment through encouraging the unemployed to improve their qualifications or seek new areas of work to explore (OECD, 2003).

It follows logically that, if unemployment is correlated with poor health outcomes, and if career guidance has been proven to improve individual employability and reduce unemployment, then a correlation between effective career guidance and good health should exist. However, there is a paucity of academic literature on the correlation between effective career interventions and health outcomes at an individual level. It has been shown at a macro-economic level that career guidance can improve social equity, improve individual quality of life, and wider health outcomes in the community (Hooley & Dodd, 2015). It has also been theorised that career guidance "may have the potential" to promote public health in particular preventing mental health conditions, but demonstrating evidence of this has proven difficult (Robertson, 2013) and there is "a need" to "adopt health-style research methods" in this field. Researchers have called for more research and debate to the implications and existence of a relationship between career guidance and health (Robertson, 2013). Numerous researchers in the field of career guidance acknowledge the challenges posed by the "prove it works" conundrum (Hiebert et al, 2014). There is a significant gap in the literature that needs to be filled with quality medical research into the direct benefits of career interventions on individual health.

In the Aotearoa New Zealand context, there appears to be no relevant literature connecting career interventions to physical and mental health outcomes. At a policy level, it has been recognised that, in order to "authentically commit to achieving health equity, nations" (such as Aotearoa) should "address all determinants of health" (Chin et al, 2018). Specifically, Chin

et al (2018) postulated that this should be achieved with shared accountability across health and social sectors, and a coordinated approach. One such "determinant of health" that is recognised as a contributing factor to health disparities is unequal access to employment and education (Walsh & Grey, 2019). Analysis of these determinants and the subsequent impact of inequities of health showed that more than half of deaths in Māori are avoidable, and suicide is the fourth leading avoidable cause of death in Māori males (Walsh & Grey, 2019). In light of these findings, there is an urgent need to explore the potential impacts and benefits of targeted career interventions on the physical and mental health of Māori in Aotearoa New Zealand.

Furthermore, in the Aotearoa New Zealand context, there is a growing recognition that Māori health should not be defined solely by the metrics and approach of conventional western medicine. The *Te Whare Tapa Wha* model of Māori health was described by Mason Durie in 1984 (Rochford, 2004), and utilises the four pillars of Māori health – *taha tinana* (physical), *taha hinengaro (*mental), *taha wairua* (spiritual), and *taha whanau* (family). More recently, the Meihana model and Hui process have been developed to conceptualize and facilitate a culturally appropriate approach to Māori health (Pitama et al, 2014). This latter model incorporates and recognises the importance of marginalisation, colonization, racism, and other factors which influence health. This research proposal seeks to incorporate the components of the Meihana Model into the research outcomes, asking the question – *does targeted career intervention improve physical, mental, spiritual and whanau health outcomes for Māori?*

Raukura Hauora o Tainui is an iwi-led health organisation providing primary health care for Māori by Māori in the rohe of Tainui, north Waikato. At Nga Miro Health Centre in Ngaruawahia, 93% of all patients identify as Māori and 73% occupy the lowest socioeconomic quintile. Unemployed and/or under-employed patients from this high-needs community will be recruited to participate in this important research.

Research Aim: To evaluate the efficacy of targeted career interventions on the holistic health outcomes of unemployed or under-employed Māori in a high-needs health setting.

Objective 1: Explore the feasibility and practicality of delivering targeted career interventions to unemployed or underemployed Māori patients, and determine methods to reduce barriers and improve access to these services.

Objective 2: Measure the pre- and post- mental health and wellbeing of patients at the point of targeted career intervention by using validated GAD7 and PHQ9 screening tools.

Objective 3: Measure physical health outcomes (body mass index, glycemic control, blood pressure, and lipids) at 3, 6 and 9 months post-targeted career intervention.

Objective 4: Measure spiritual and whanau health outcomes from a culturally appropriate perspective utilising a validated retrospective post-then-pre assessment of wellbeing that has been tailored to be acceptable to Māori at the point of targeted career intervention.

Research Methodology

This project is a pilot study exploring the health outcomes of targeted career interventions for unemployed or under-employed Māori aged 18-65 with a specific focus on the Māori perspective of health as described in the Meihana model. The research seeks to evaluate the impact that a series of targeted career interventions (group and individual) by qualified career practitioners including at least one holistic Māori practitioner has on patients' physical health metrics (height, weight, blood pressure, HbA1c, lipids), mental health and wellbeing, spiritual and whanau health. The study is also designed to collect additional information such as barriers to access, practical aspects of service delivery, and other data that can be used to develop larger programmes or interventions at a regional or national level.

This study is being run under the auspices of Raukura Hauora o Tainui, a Māori health organisation whose mission is to: "deliver quality kaupapa Māori health and wellbeing services to all people living in the rohe of Tainui waka so that they are empowered and able to thrive and prosper". This community health organisation will facilitate the study through the provision of suitable premises for delivery of career interventions, transport for study participants (where needed) and assistance in removing barriers to access, and cultural support to ensure that participants feel welcomed, included, and supported throughout their involvement.

The study will be approved by the New Zealand Health and Disability Ethics Committee and a relevant Tainui kaumatua prior to commencement.

Study Cohort

We plan to recruit approximately 15 patients from the rohe of Tainui for this study. There will be no control group, on the grounds that this is a pilot study and the cohort of 15 will be too small to establish statistically significant results. Any future power study would seek to scale up to several hundred participants, utilising control groups in cohort 1 and cohort 2.

Inclusion criteria for this pilot study includes:

- Underemployed (employed in less than 30 hours' work per week) or unemployed for at least the preceding 3 months
  - Aged 18-65

Exclusion criteria includes:

- On a Work and Income New Zealand supported living payment ("sickness benefit")
- Employed in a full-time capacity at any stage within the past 3 months
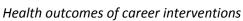
Study Recruitment

There are two potential avenues for recruitment in this study. The Ngaruawahia branch of Work and Income New Zealand will be asked to provide a list of potentially suitable candidates who meet the inclusion criteria, who will then be contacted to determine if they are willing to participate. A query build of patients registered to Nga Miro Medical Centre in Ngaruawahia who are classified as "unemployed" will be generated, and these patients will be invited to participate in the study if they meet the criteria. The clinician at Nga Miro Medical Centre will also prospectively recruit patients who are unemployed/underemployed in the months leading up to the study start date. All potential participants will be provided with information written in both English and Te Reo Māori explaining the purpose of the study, what the targeted career interventions involve, and what follow-up will be conducted. They will have the opportunity to ask questions prior to commencement of the study and again at the first targeted career intervention group meeting, where consent will be obtained in writing from each participant. They will be advised that there will be no financial compensation for their participation, but that kai will be provided at career intervention meetings, and assistance with transport will be available if required. A small koha may be given if culturally appropriate at the final career intervention session.

Baseline Data

After obtaining informed consent for the study, the following baseline information will be obtained from each participant:

- HbA1c
- Non-fasting lipids
- Blood pressure
- Height, weight, and body mass index
- Smoking (yes/no)
- Employment status

The first questionnaire will be a retrospective post-then-pre assessment of mental health and wellbeing designed by Canadian researchers in career development, Dave Redekopp and Michael Huston. Special dispensation to utilise their tool has been sought and approved

by the authors. The retrospective post-then-pre assessment is more effective and less time-consuming than comparisons between pre- and post-assessments (Bhanji et al, 2012). Potential threats to validity of this tool include social desirability bias and cognitive dissonance (Colosi & Dunifon, 2006), but experts concur that the post-then-pre method reduces the risk of response shift bias and reduces pretest sensitivity (Lam & Bengo, 2003; Colosi & Dunifon, 2006). The retrospective post-then-pre questionnaire developed by Redekopp & Huston will be specifically tailored to be culturally appropriate for Māori, and will be assessed during ethics approval by a selected Tainui kaumatua to ensure validity for Māori as a tool for assessing health and wellbeing in accordance with the Meihana Model. There are no such tools in the literature which have been validated for a Māori cohort to date. The retrospective post-then-pre model of data collection has a high level of reliability (Brown et al, 2014), but requires a thorough evaluation of the measurement strategy prior to its utilisation (Geldof et al, 2018).

Participants will also be asked to complete two further brief assessments of mental health: the Patient Health Questionnaire 9 (PHQ-9) and the Generalised Anxiety Scale (GAD-7). These are valid and reliable tools for assessing mental wellbeing, and the lead investigator has several years' experience administering these in a general practice setting. However, a systematic review of the PHQ-9 found that researchers should be aware of the impact of language, medical comorbidities, and contextual nuances in resource constrained settings (Carroll et al, 2020). Both the GAD7 and the PHQ-9 have been shown to have good internal reliability and validity in a variety of unique international settings (Onie et al, 2020; Zhang et al, 2021). During this pilot study we will be mindful that the application of these tools to Māori has not been validated in the literature, but their proven validity and reliability worldwide gives confidence that this will be replicated in the Aotearoa setting.

Study Design

This pilot project is a mixed social and health science collaboration which will involve the delivery of targeted career interventions to a select cohort of unemployed or underemployed Māori adults by specialist career practitioners. We propose to identify and recruit approximately 15 under-employed or unemployed Māori adults from a high needs semi-urban health setting, either using direct recruitment from Nga Miro Health Centre (primary care) or from the Work and Income Ngaruawahia office. The research involves providing these participants with targeted high quality, culturally safe individualised career interventions based on current best practice and delivered by two qualified career practitioners, including one Māori career professional, across a 4-8 week period. The project will involve an initial group hui delivered by the Māori career practitioner, followed by individual career guidance sessions delivered by both career practitioners over the following weeks. These career interventions will be delivered in accordance with tikanga Māori and kaupapa, and delivered in English according to current recognised best practice, utilising a

career development framework with a Māori perspective (Koligi et al, 2002). Whanau will be welcome at all sessions.

The career development practice will be approached through a constructivist paradigm – where practitioners are open to multiple worldviews and are cognizant that there are more than one version of reality (Patton and McMahon, 2017 as cited in Arthur, N 2019). The constructivist paradigm allows for different cultures and contexts to be imbued into the career development practice and compels practitioners to explore the meanings and experiences of concepts of career through a cultural lens. Practitioners will draw on tikanga and Māori values to guide and influence each session while establishing a relational environment where clients feel they are important. (Amundson, 2019). The service will be delivered in English, and participants will be informed of this in advance. The semi structured nature of the career development sessions will be influenced by Durie's 3 E's Model (Whakapiri, Whakamarama, Whakamana). Our practice will encompass Te Whare Tapa Wha and will be influenced by career theories such Amundson's Active Engagement Model, Savickas' Life Design, Krumboltz's Social Learning Theory, Bright's Chaos Career Theory, and Holland's theory of Vocational Typology.

A summary of theoretical underpinning of practice.

Savickas' Life Design model proposes that the client is the storyteller of their lives. By narrating their life story, they can discover emergent themes and trends that will assist them in articulating their identity (Savickas, 2011). From a Maori perspective, formation of identity is influenced by many factors including whakapapa, tikanga, and tribal history as well as skills and values (Koligi et al., 2002). Krumboltz's Learning Theory of Career Counselling (LTCC) and Social Learning Theory of Career Decision Making (SLTCDM) are useful models in assisting both practitioners and clients in identifying influences on perceptions about careers and the world of work as well as providing practical and pragmatic tools and techniques on how to take action on career decision making (Mitchell and Krumboltz, 1996, 234 as cited in Bimrose, nd). Bright's Chaos Theory of Careers recognises that the world of work is complex and career paths are affected by a multitude of seemingly unrelated factors (Bright & Pryor, 2011 as cited in Pryor & Bright, 2019). This notion is extremely relevant in our post-Covid society and therefore, the career theory and its applications is a necessary part of any modern effective career practice. It is imperative that practitioners convey the nonlinearity of career trajectories in the modern era and advocate for the non-conventional career profile. Concepts such as the portfolio career, networking and contingency planning are an important aspect of this theoretical approach to career development. Bright focuses on the importance of teaching clients about

opportunity awareness, resilience, and adaptability within the world of work (Pryor and Bright, 2017 as cited in Pryor & Bright, 2019).

Breakdown of Sessions

Career development sessions will be delivered in a mixed modality format. There will be a mixture of group activities, one on one and remote consultations. The sessions will start and finish with a group hui, korero and karakia.

Introductory Group Session

Kai will be shared and a group hui will be conducted to introduce career practitioners to the participants and whanau, and to introduce the concepts of career development. Many of the participants and whanau may not be familiar with career development and it is crucial that participants and whanau have a clear understanding of the activities undertaken in career development sessions and what the expected outcomes may be. Participants and their whanau will have the opportunity to ask questions.

Individual Sessions

Session 1

The first individual session will be conducted by both Hana and Claire. In this session, practice will be influenced mainly by Savickas Life Design theory and Krumboltz Social learning theory. Participants will be encouraged to explore the concepts of career and work through storytelling and exploration of experiences. An introduction to the concept of gas and goal setting take place and an exploration of values and principles.

Session 2

Hana will facilitate the second session. Throughout this session, there will be a focus on skills and interests. Using such career models such as Hollands' Theory of Career choice and exploration of past roles and skills developed through these will enable the participant to create an understanding of their own unique set of skills and interest and gain a greater understanding of how these relate to the world of work.

Session 3

Claire will facilitate this session. The focus on this session will draw mainly on Krumboltz's Learning Theory and Bright's Chaos theory of careers. The focus will be on taking practical steps to explore career possibilities and opportunity awareness. The practitioner's main role

in this session will be to assist the participants in creating an action plan for their career and equipping them with the necessary tools to access resources required.

Final Group Session

The final group hui will be facilitated by Claire and Hana. This will be an opportunity to reflect on learnings throughout the career development process. Assess the process and whether participant objectives were achieved. It will be a shared learning and reflection process where participants evaluate their perceptions and expectations of both the world of work and the career development process both prior to and after the interventions. There will be an opportunity for participants to consolidate their learning and reflections and hopefully share their achievements with the wider whanau.

It is expected that the five career interventions will take place across a timeframe of approximately 8-10 weeks, after which further contact with participants will be solely for the purposes of data collection.

Additional components of the study design

A Kaiāwhina/wraparound service will also be provided to all participants in the study by Raukura Hauora o Tainui, to ensure that participants' needs are met with respect to access to services, transport, and other potential barriers. A record will be kept of potential issues as they arise, which will provide complimentary information to the researchers with respect to barriers to access that may arise if the study is scaled up into a larger project.

Aside from initial data collection, career practitioners providing the interventions will korero regularly with participants and keep a record of relevant information about levels of engagement, barriers to access, or other barriers to completing their involvement in the study. This information will also be used to inform the overall objectives of the research.

Data Collection and Results

Data will be stored securely on MedTech, a confidential patient management system licensed to Raukura Hauora o Tainui by the lead researcher. A data management plan will be followed as per ethics approval processes, and confidentiality will be maintained. Participants will have the right to access their data, and the right to have their data removed and/or destroyed in accordance with their rights under the Privacy Act.

The following data will be collected at 3 months, 6 months, and 9 months following the initial data collection:

- HbA1c
- Non-fasting lipids
- Blood pressure
- Height, weight, and body mass index
- Smoking (yes/no)
- Employment status
- PHQ-9 questionnaire
- GAD-7 questionnaire

This data will be analysed to determine if there has been an improvement in patients' physical and mental health as a result of the targeted career interventions. With participant and whanau consent, participants will be asked directly whether their spiritual and/or whanau health has improved as a result of the targeted career intervention. There are no validated tools to assess spiritual or whanau health in the Māori health context (Hoeta et al, 2020), and there is an emergent need for these to be developed in the Aotearoa New Zealand health research space.

We will record all aspects of participant contact with the research team during the study period. We will record what was required and which additional resources were required to support success in the project, which will inform research conclusions. The final careers intervention will provide an opportunity for a focus group or semi-structured interview to better understand the barriers and enablers to career development and improved health outcomes for our participants.

Data analysis and pilot study evaluation

Owing to the small sample size of this pilot study, we do not expect to demonstrate statistically significant results. During data analysis, accommodation will be made for confounding factors such as which participants enter employment and at what stage post-intervention this occurs. Data sets will be divided into those who enter full employment and those who remain unemployed or unemployed.

For this pilot study we will engage with a statistician to seek advice on a future power study for the career intervention and establish the types of statistical analysis that will be required. At the conclusion of this pilot, we aim to assess the scalability, cost, and feasibility of a large power study, and to establish the resources required for such an intervention. We will seek to answer the question of whether others can be trained to deliver the intervention, and at what cost, and the practicalities of delivering a targeted career intervention to several hundred people.

About the Research Team

Dr Michael Oehley *MBChB PGDipTravMed PGCertAppMan FRNZCGP*

Dr Michael Oehley is a general practitioner, medical educator, and the Chief Examiner – Written for the Royal NZ College of General Practitioners. He has over eight years' experience working in high needs urban and rural communities in the Waikato, with a particular interest in Māori health and well-being. In his role as Clinical Lead – Projects for Raukura Hauora o Tainui he has a mandate to explore and develop new strategies and interventions to improve Māori health outcomes with a particular focus on improving equity. He has previous experience in academic research, with three publications.

Claire Oehley *BSc, PGDipCareerGuid, MProfPrac (Career Dvpt), PMCDANZ*

Claire Oehley is a qualified career practitioner with over five years' experience in private, community and government sectors, including the provision of career guidance to unemployed New Zealanders through the Direct Career Guidance Project for the Tertiary Education Commission. Her Masters research comprised an ethnographic action-based research project on adolescent career clarity, during which she developing a new model of career clarity in adolescents. Claire is also branch co-lead for the Waikato branch of CDANZ.

Hana-Maree Lambert *BSocSc, PGDipCareerDev, PMCDANZ*

Hana-Maree Lambert is Ngāti Maniapoto (Ngāti Apakura) and Ngāti Mutunga. She is an experienced career development professional with over 25 years working as a career development practitioner and educator. Hana is a strong advocate for Māori and is currently studying a Masters of Indigenous Studies. Her area of research interest is further developing a contemporary Māori model of Career Development linking to Hauora and the wider impact on Maori Economic Development. Hana is on the National Executive of the Career Development Association of New Zealand.

Dissemination

The findings of this study will be reported through traditional academic channels (the annual conference of Career Development Association of New Zealand, CDANZ; and the annual conference of the Royal New Zealand College of GPs, RNZCGP; and publications) and via primary care networks. Claire Oehley and Hana Lambert are members of CDANZ and can facilitate wider dissemination via their contacts. Terina Moke, CEO of Raukura Hauora o Tainui will disseminate results via the Board and contacts within the political sphere.

Importantly, these results will be reported back to Hauraki PHO and to other PHOs and GP practices via medical education evenings and via clinical staff engaged in this project. The goal is to develop awareness that aspects of social science such as career development have relevance to medical science; and to advocate for the concept that the delivery of improved health outcomes and health equity requires a more holistic approach than the traditional pharmacologically-based western medical model.

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