PhD in Health Care User Experience: Lung Cancer

Qualification type: PhD
Location: Hamilton, New Zealand
Funding: Students will need to apply for a UoW Doctoral Scholarship at the time of applying for an Offer of Place – The Scholarship is worth $22,000 (NZD) per annum plus domestic fees for a period of three years
Hours: Full Time
Closes: Until the position is filled
Chief Supervisor: Professor Ross Lawrenson
Department: Waikato Medical Research Centre
Notes: When submitting an application to enrol please ensure you provide the project title in the ‘Research Area of Interest’ section on the Supplementary Form.

Project description

Hypothesis for PhD: The hypothesis for the study is that a multi-pronged, community designed intervention undertaken within primary care will improve early detection and diagnosis for Māori with symptoms of lung cancer.

Tentative PhD Research Question (flexible depending on student direction): What are the barriers for Māori at risk of lung cancer in accessing Primary Care and other health care services?

Rationale for Research
Lung cancer is a priority cancer in New Zealand (NZ) as it is a large volume cancer, with poor survival and large inequities. It is the leading cause of cancer deaths in NZ with approximately 1650 deaths per year. Overall lung cancer survival in NZ is poor with 34.3% of patients being alive at 1-year post diagnosis and 11% at 5 years. Māori men have double the incidence and Māori women have 3.4 times the incidence of lung cancer compared to NZ European men and women [3]. For Māori, the survival percentages are 33.5% at one year but only 6.5% at 5 years. With Māori having both a higher incidence and poorer survival the age standardised mortality rate for Māori is thus 3.5 times that of non-Māori. Internationally many countries achieve better survival outcomes than NZ including Canada, Australia and Sweden where 5-year survival is between 16 to 18%. There are also gender differences in survival: 5-year survival for men of 9.5% and 11% for women compared with Australia (NSW men 13% and women 15%) and Canada (men 14% and women 18%). There are also significant variations in outcomes across NZ, with 5-year relative survival ranging from approx. 5% to 14%.

There is some evidence from Auckland and Rotorua that there are differences in the presentation and management of Māori. Māori were more likely to present with advanced disease and are less likely to receive potentially curative treatment. In the Midland Cancer Network Region 27% of patients are Māori and of the 350 new cases of lung cancer that occur each year 25% cases occur in Māori.

Design and Methods
This study will take a kaupapa Māori philosophical approach, meaning that it will prioritise self-determination and Māori health aspirations.

Method 1: Kanohi ki te kanohi (face to face) semi-structured interviews
Twenty newly diagnosed Māori patients with recently diagnosed lung cancer and their whānau from throughout the MCN region will be interviewed. This will assist in defining and understanding why Māori present late with lung cancer and to identify the barriers and enablers they encountered. Similar studies have been undertaken in other populations [41] including a NZ study that included 19 patients recruited from patients presenting to Emergency Departments [42], but with an insufficient focus on Māori experiences. Our sample will include 20 adult Māori with newly diagnosed lung cancer and their whānau who are resident in the MCN region. These interviews will take place over a 12-month period where the expected number of Māori with a new diagnosis is estimated at 100. We expect to see a mix of patients including those who have been on the Faster Cancer Treatment pathway after being seen by their general practitioner and other patients diagnosed through the emergency department or other route. Interviews will be semi-structured, using open ended questions with each of the key processes of patient decision making, symptoms, access to healthcare, and pathway to diagnosis will be explored. Core demographic data will also be obtained. Patients will be recruited through the respiratory nurse specialists and invited to an interview with a Māori researcher fluent in Te Reo. We have successfully used this methodology in our breast cancer research into health literacy needs of Māori women with cancer (HRC 14/484).

**Method 2: Hui/focus groups with Māori adults at risk of lung cancer and their whānau**

In this study two focus groups will be conducted in each of the intervention localities (n=12) with Māori who self-identify as being at risk of lung cancer and their whānau. Data collection will focus on participants’ perceptions of lung cancer and its treatment, how they identify the need to seek health care (symptoms, severity, availability of services), and the barriers and enablers they have experienced or anticipate. The aim of collecting data from a selection of patients without lung cancer is to confirm that there are similar perceived barriers and enablers, and to triangulate the findings of the interviews with newly diagnosed patients. We will approach Māori providers and local Marae to help recruit our focus groups; this is an approach we have successfully used in past projects.

**IMPLEMENTATION**

In conjunction with a Provider-based PhD student, a cohesive community-based intervention will be developed, incorporating the health user experience and the provider experience. This will be co-designed with the community.

In collaboration with the Regional Advisory group, an intervention will be developed at a particular regional site. Local kawa (protocols) will be followed to engage in a co-design process with the community, to establish how the intervention framework can be refined and operationalised for the benefit of the location. An environmental scan will be done on a potential location, focusing on the specific needs of the community related to the availability of health services, geographical challenges, preferred health promotion mechanisms, and socio-cultural contexts.

Particular attention will be given to the needs of the Māori community.

**Piloting the intervention**

The intervention will combine a focus on improving knowledge and understanding of the signs and symptoms of lung cancer and the pathway to treatment (critical health literacy) with an appeal to local primary care providers to ensure rapid access to chest X-rays and if appropriate Computer Tomography (CT) scans. Having co-designed the intervention with patients and health care providers in the locality we will then apply the intervention over a three-month period using social marketing including newspapers, radio and local health providers such as pharmacies, GP surgeries and other outlets suggested by our stakeholders. The intervention will be delivered in
each of the 6 participating communities at 2-month intervals, for a period totalling 4 months (3 for the intervention, and 1 month to complete the evaluations).

**Key outcome measures will include:**

- An increase in patient and community knowledge evaluated through repeating interviews with participants (post-intervention interviews)
- Increased presentation to GP

If the pilot intervention is successful, further implementation across other sites may occur.

**Person Specification**
Candidates should normally hold a First or Upper Second class honours degree in a relevant subject with some health research knowledge. Prior research experience, together with the ability to analyse, develop and solve open-ended research problems is desirable.

**Skill summary:**

- Fluent in Te Reo
- Experience with literature review
- Understanding of kaupapa Māori approach
- An understanding of health
- Experience building relationships
- Experience with interviewing and focus groups
- Academic writing skills
- Masters in relevant discipline
- Organisational skills

**Personal Qualities**

- A team player – Can work effectively as a member of a team
- Conscientious - do a task well, and take obligations to others seriously
- Commitment to equal opportunity and to the University partnership with Maori as intended by the Treaty of Waitangi
- Ability to work with a range of organisations and individuals
- Ability to relate effectively and sensitivity to colleagues from a range of backgrounds and cultures
- Leadership – demonstrate integrity and support others
- Confidence to build relationships/work/engage with diverse Māori community/iwi/hauora organisations
- Ability to learn and meet timeline target/s

**Please note** that instead of the ‘Research Proposal’ we request a ‘Statement of Research Interests’. Your statement should answer two questions: (i) why are you interested in the topic described above? (ii) what relevant experience do you have? Your statement should be brief: no more than 500 words or one side of A4 paper. In
**addition** to your CV and Statement of Interest we would also like you to send a sample of your written work (e.g. excerpt of final year dissertation or published academic paper).

**Funding**
The University of Waikato offers PhD scholarships of up to $25,000 plus domestic fees. This is not guaranteed as a part of the PhD project, and must be applied for separately. The closing dates for this 1 March, 1 July and 1 November).

**Contact information**
Further information and informal enquiries may be made to Dr Lynne Chepulis ([lynnec@waiakto.ac.nz](mailto:lynnec@waiakto.ac.nz); phone 07 837 9553)/

**How to apply**
Please send your CV and Statement of Research Interest along with a sample of your written to Dr Lynne Chepulis ([lynnec@waiakto.ac.nz](mailto:lynnec@waiakto.ac.nz); phone 07 837 9553).