Recruitment and retention of the Rural Podiatric workforce in New Zealand: Podiatrist perceptions.

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Abstract

Background The role of podiatrist is important to the health and wellbeing of our rural communities. However, in New Zealand, there is a recognised shortage of podiatrists. Furthermore, the ability to recruit and retain primary care podiatrists in rural areas is thought to be challenging. The aim of this study is to find out what factors contribute to recruitment and retention of rural primary care podiatrists in New Zealand.

Methods This study uses a Qualitative Descriptive approach. Semi-structured interviews were conducted with a number of podiatrists to better understand the factors contributing to recruitment and retention of rural primary care podiatrists in New Zealand.

Results A rural background or family/whanau connections to a region were the strongest factors influencing recruitment to rural podiatry practice in New Zealand. This was also the principal factor in retention, however professional and social factors such as career fulfillment, nature of work and sense of belonging were also strong. Extensive travel, heavy workloads and professional isolation were factors that contributed to attrition.

Conclusion This study provides the first insight into factors contributing to rural podiatrist's recruitment and retention in New Zealand. The most striking factor for recruitment is a rural background, and yet no work is being done nationally to promote podiatry as a career option to potential students from rural areas. Based on this study and given the key role podiatry can play in achieving greater health outcomes, it is essential that a strategic approach to workforce planning and retention by health policy makers and providers is undertaken if rural podiatry is to meet the needs of rural New Zealand.

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Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

Erin Beeler

Chapter 1: Background

Podiatry in New Zealand

The Podiatrists Board of New Zealand (PBNZ) defines a podiatrist as “a registered health professional who deals with the prevention, diagnosis, treatment and rehabilitation of medical and surgical conditions of the feet and lower limbs” (Podiatrists Board of New Zealand, 2019 p.1). In New Zealand, Podiatry is one of the ten allied health professions regulated by the Health Practitioners Competence Assurance (HPCA) Act 2003. Under these regulations, all podiatrists must be registered with the PBNZ and hold an Annual Practising Certificate (APC).

The term ‘allied health’ is understood to refer to health professionals outside of the medical, nursing and midwifery, kaiawhina professions (Hogan, 2021). The core skills of allied health professionals represent a major resource for the health system (Hogan, 2021). There were 430 registered podiatrists in New Zealand in March 2019. With a population close to 4.78 million, this equates to approximately 8.5 podiatrists per 100,000 people. This figure is low when compared with our counterparts in Australia and the United Kingdom, who have approximately 20 podiatrists per 100,000 people (Carroll et al., 2020). A recent study exploring PBNZ workforce data concluded that, due to the lower number of per capita podiatrists, there is evidence of a “workforce shortage” suggesting that the New Zealand podiatry profession is at crisis point (Carroll et al., 2020).

In New Zealand, 80% of podiatrists work in private practices (Carroll et al., 2020). Private practices, or ‘Tier 1’ encompasses a broad range of services and other activities that take place outside of hospitals (Health and Disability System Review, 2020). Podiatrists work both individually and as part of a multi-disciplinary clinical team (Harrison-Blount et al., 2019). Tier 1 podiatry clinics are often run out of purpose-built facilities, or from a room with shared services, for example within a general practice or health centre. Many podiatrists work across several physical locations, and some run mobile clinics requiring them to carry clinical equipment. In rural areas, this may involve extensive travel and time-consuming set up between remote clinical locations.

Whilst podiatrists treat a broad range of lower limb conditions, demand for podiatry services comes largely from people with diabetes and adults over 65 years (Carroll et al., 2020). In New Zealand, the number of people aged over 65 years is increasing. By 2034 there is predicted to be 1.2 million people aged 65 and over: just over a fifth of the population (Ministry of Social Development, 2019). The Healthy Ageing Strategy, 'Better Later Life – He Oranga Kaumātua 2019 to 2034' acknowledges that an increasingly older population will mean steadily increasing health care needs, higher rates of long-term chronic health conditions and disabilities requiring regular support (Ministry of Health, 2019).

Between 50 and 90% of the older population have problems with their feet (Vernon et al., 2001). Foot disorders can affect many aspects of a person's life, especially when associated with systemic disease. Podiatrists have a prominent role to play in symptom relief and improving quality of life because foot pain, even to a mild degree, is a significant marker for impaired mobility, functional incapacity, and negative psychosocial impact (Rome et al., 2010; Harrison-Blount et al., 2019). Regular podiatric intervention and management also reduces risk of falls, ulceration, and amputation in older adults (Townson, 2014).

According to the International Federation of Diabetes, in 2015 there were 415 million adults living with diabetes globally, and this figure is on the rise (Shamshirgaran et al., 2020). In New Zealand, the Ministry of Health Virtual Diabetes Register recorded over 263,000 people with diabetes in 2019. Almost half of these live outside of the greater urban areas of Auckland, Wellington, and Christchurch. In line with international trends, the number of people living with diabetes in New Zealand is growing, with Māori and Pacific Island populations disproportionately affected (Ihaka et al., 2012).

People with diabetes experience high rates of foot complications due to the damage that diabetes causes to the nerves in the feet, blood circulation, and infection (Kim et al., 2012). One such complication is Diabetic Foot Ulceration (DFU). Up to 25% of people with diabetes will experience a DFU in their lifetime, and about 85% of lower limb amputations are preceded by a DFU (Blanchette et al., 2020). The risk of foot complications is even higher in Māori. A cross sectional study to determine the clinical and foot characteristics of Māori with diabetes showed a high prevalence of foot complications which, if left unmonitored or undetected, may predispose the foot to ulceration (Ihaka et al., 2012). Podiatrists are uniquely positioned to use their combined knowledge of biomechanics and wound management in ulcer

prevention strategies. Podiatrists play a key role in the prevention and treatment of foot deformities and complications related to diabetes (Kim et al., 2012). Regular monitoring, routine skin and nail treatments and orthotic and footwear advice/modifications done by podiatrists have been linked with limb preservation (Kim et al., 2012).

The Health and Disability System Review 2020 recognised the increasing pressures on the health and disability system owing to population ageing and changes in the distribution of where people live and work with rural areas growing faster than urban areas (Health and Disability System Review, 2020). Currently the demand for podiatry services in New Zealand is high. With an ageing population, the growing burden of diabetic foot disease and an increasing emphasis on the delivery of transdisciplinary care, demand for podiatry services is likely to increase (Humphreys et al., 2010). This in turn demands a growing health workforce, yet there is a recognised lack of allied health care workers, including podiatrists, particularly throughout rural New Zealand (Carroll, et al., 2020; Cornwall & Davey, 2004; May, et al., 2017).

Rural health

There is no internationally recognised definition of the term ‘rural,’ the key consideration being the purpose for which the term is used (Wong & Nixon, 2016). Rurality, in the New Zealand health care context, can be defined several ways. Population size, distance from a hospital, and distance to commute to an urban centre for employment, are three examples (Bell et al., 2018; Wong & Nixon, 2016; Goodyear-Smith & Jones, 2008). One in four New Zealanders live in a rural area and there is a greater percentage of children, older people, and Māori living rurally (Cornwall & Davey, 2004; Ministry of Health, 2019). In New Zealand, rural areas have a lower socioeconomic demographic compared with urban areas, and the poorest access to health services (Nixon & Lawrenson, 2019; Ministry of Health, 2019). Indeed, there is dedicated support across the literature that the health status of rural communities is poorer than that of their urban counterparts (Struber, 2004; Campbell et al., 2012; Adams & Carryer, 2019; Crampton & Baxter, 2018).

Health inequalities persist and long-term conditions are prevalent in New Zealand's rural communities, with health inequities between Māori and non-Māori most evident (Adams & Carryer, 2019; Crampton & Baxter, 2018). New Zealand health sector's ability to deliver services rurally is stretched and health workforce deficits are frequently articulated (Adams & Carryer, 2019). The WAI 2575 report of the Waitangi Tribunal argued that the Crown has failed to ensure equitable health outcomes for Māori, putting the Crown in breach of te Tiriti o Waitangi (Hogan, 2021). Workforce shortages in rural areas result in service gaps, which may have dire consequences for the health of rural people (Allen et al., 2020; Chisholm et al., 2011). Therefore, attracting and retaining a heath workforce in rural New Zealand is a pressing issue for health policy makers and providers (Crampton & Baxter, 2018).

Rural health workforce

The rural health workforce is of national significance in New Zealand. Current Minister for Rural Communities, Damien O'Connor, highlighted the importance of an available, strong health workforce for the wellbeing of rural communities and acknowledged that, "Rural New Zealand needs to know that health services will be there when they need them" (Clark & O'Connor, 2018, para. 11). The Ministry of Health has an expectation of healthcare delivery close to home (Ministry of Health, 2019). As the health needs of rural communities' increase, being able to retain and upskill the diminishing rural workforce is more important than ever (Clark & O'Connor, 2018; George et al., 2019).

There is evidence and awareness of rural health workforce challenges in New Zealand (George et al., 2019; Clark & O'Connor, 2018). During his time as Minister of Health, Dr David Clark acknowledged this by saying "It's widely known and accepted that we face challenges attracting and retaining health professionals in some of our smaller communities. We need to make our rural health workforce more sustainable" (Clark & O'Connor, 2018, para. 2). Many New Zealand health providers find recruitment and retention difficult. For health providers in rural settings, the challenges are even greater, with fewer applicants and shorter tenures (George et al., 2019). As distance from urban centres increases, the difficulties in recruiting and retaining health practitioners also increases (Humphreys et al., 2010). Recruitment and retention issues in rural areas further compound issues of inequitable access to health care and subsequently poorer health status of vulnerable communities (Mills & Millsteed, 2002).

Rural health workforce research

In 2008, Goodyear-Smith and Jones published results of a postal survey of the New Zealand rural primary health care workforce, specifically general practitioners, general practice nurses and community pharmacists. They found that the rural health workforce was ageing, with many practitioners intending to leave, thus alerting to a future workforce shortage (Goodyear-Smith & Jones, 2008). In a subsequent paper for the Victorian Department of Health, Humphreys, Chisholm, and Russell (2010) reported that podiatry positions had the longest length of vacancy with indications by health managers of the difficulty in recruiting podiatrists to rural health services in Australia. Knowledge and understanding of the existing rural allied health workforce are necessary to guide workforce planning (Smith et al., 2008). However, currently there is a paucity of rural podiatry workforce data globally, and none that is New Zealand specific (Carroll et al., 2020).

It is clear from the literature that recruitment (defined as identifying and filling staffing requirements) and retention (defined as a measure of workforce length of stay) are key issues for the rural health workforce, and important to the long-term success of rural health care systems (Goodyear-Smith & Jones, 2008; Humphreys et al., 2009; Chisholm et al., 2011; George et al., 2019). Research on the rural workforce, both in New Zealand and globally, has identified several factors influencing recruitment and retention (Kataoka et al., 2018; Kent et al., 2018; May et al., 2017; Hogenbirk et al., 2015; Playford et al., 2006; Struber, 2004). According to literature, the leading factor contributing to recruitment and retention of a rural workforce is rural background (Kataoka et al., 2018; Kent et al., 2018; May et al., 2017; Hogenbirk et al., 2015; Playford et al., 2006; Struber, 2004). This has been described as the rural background effect (Hogenbirk et al., 2015). In 2015, a cohort survey of health workforce graduates from Monash University in Australia concluded that most health workforce graduates practising in rural communities came from a rural background. As a result, the authors suggested that University recruiters target rural high school students and offer health workforce scholarships to students of rural and indigenous origin (Hogenbirk et al., 2015).

In addition to the rural background effect, the literature reports a wide variety of factors which positively and negatively influence recruitment and retention of a rural health workforce (Humphreys et al., 2009;

Kataoka et al., 2018; Kent et al., 2018; May et al., 2017; Playford et al., 2006; Struber, 2004). According to Humphreys et al. (2009) these factors can be grouped into four main themes: economic, professional, social, and external. Factors within these themes may be modifiable, or non-modifiable (Humphreys et al., 2009). Modifiable factors include remuneration and continuing professional development options. Non-modifiable factors include geographic location and climate. These themes are also often inextricably intertwined, and the weight placed on individual factors may change over the course of a health worker's career (Humphreys, 2009; Keane et al., 2011).

Factors positively influencing recruitment and retention have been identified in multiple studies (Godwin et al., 2016; Garrett, 2008; Campbell et al., 2012). In 2016, Godwin researched views of rural Australian dental practitioners and found that factors for recruitment and retention were related to social and professional/ organisational themes. These included a desire for a rural lifestyle, more challenging job opportunities, a wider range of patients and clinical exposure, an enjoyable patient base and a sense of belonging to a community. Similarly, an online survey of rural Australian pharmacists found professional factors such as hours/role, continuing professional development (CPD) opportunities and external factors such as location influenced job satisfaction and therefore retention to rural practices (Garrett, 2008).

According to Campbell et al. (2012) diverse caseloads, autonomy, community connectedness, job security and staff support are factors influencing retention in the Australian rural allied workforce. Furthermore, exploration of the factors that influenced graduate allied health workers to work rurally included job opportunities, clinical experience, salary, rural lifestyle, and professional mentorship (Johnson et al., 2019). In New Zealand, health workforce literature includes a paper by Kearns et al. (2006), who interviewed overseas trained health workers practicing in rural New Zealand and found that clinical exposure, an enjoyable patient base and a sense of belonging to a community were factors associated with recruitment and retention.

Factors negatively impacting recruitment and retention have also been identified in several Australian-based studies (Campbell et al., 2012; Robinson & Slaney, 2013; Godwin et al., 2016). In their 2012 literature review of factors influencing retention in the Australian rural allied workforce, Campbell, Eley and McAllister found that poor matching of people to positions, inadequate housing, excessive travel, and

issues with leave and locum access were cited as reasons for leaving rural health workforce roles (Campbell et al., 2012). In 2013, Robinson and Slaney conducted semi-structured interviews of general practitioners in rural Australia to identify factors influencing attrition from rural practice. These included seeking specialist training, being closer to urban based extended family, perceptions of better educational opportunities for children in urban areas and a lack of cultural support in rural areas (Robinson & Slaney, 2013).

In the previously mentioned study by Godwin et al. (2016), rural Australian dental practitioners cited professional isolation, increased workload, limited access to CPD, limited job opportunities for partners and failure to integrate into the community as reasons for leaving rural practice. Johnson et al. (2019) also cited factors such as proximity to friends and family, difficulties in building a social and professional network, isolation, suitable employment opportunities for partners and less professional support as reasons for leaving rural positions. Other factors cited in the literature as reasons for leaving rural practice include professional and social isolation, insufficient supervision, inflexibility of work hours, lack of support, reduced access to professional development, lack of locum cover, excessive travel, and inability to influence decisions/success (Campbell et al., 2012; Du et al., 2019; Garrett, 2008; Struber, 2004).

Chapter 2: Research Aim

There is little doubt from the literature that small countries like New Zealand are struggling with health workforce shortages (Goodyear-Smith & Jones, 2008). Globally, the turnover of the health workforce is high and a thorough understanding of the factors contributing to recruitment and retention is essential (Kearns et al., 2006; May et al., 2017). The New Zealand podiatry workforce is currently in crisis and of particular concern is the small number of podiatrists working outside of major cities (Carroll et al., 2020). To date no one has sought to understand the factors influencing recruitment and retention of rural podiatrists, in New Zealand or overseas. Workforce data are required to inform policy makers and providers (Carroll et al., 2020; Goodyear-Smith & Jones, 2008; Spetz et al., 2016). Therefore, this study aims to explore the factors which contribute to recruitment and retention of rural podiatrists in New Zealand.

Chapter 3: Materials and Methods

To understand recruitment and retention of the rural podiatric workforce in New Zealand, information is required directly from those with experience in rural podiatry. The use of a Qualitative Description approach has been suggested for use when information is required directly from those experiencing the phenomenon under investigation (Bradshaw, Atkinson, & Doody, 2017). Qualitative Description is a research method that provides a rich, straight description of participants experiences (Neergaard et al., 2009). This research used a Qualitative Descriptive approach described by Neergaard et al. (2009) to investigate rural primary care podiatrists' views around recruitment and retention of rural podiatrists.

The ontological position of Qualitative Descriptive research is relativism, which accepts that many interpretations of reality exist and that what is offered is a subjective interpretation strengthened and supported by reference to verbatim quotations from participants (Bradshaw, Atkinson, & Doody, 2017). The epistemological position of Qualitative research is subjectivism, which accepts the reality of all objects, relies entirely on an individual's awareness of it, and stresses the role and contribution the researcher plays (Bradshaw, Atkinson, & Doody, 2017). Methodological assumptions consider how researchers approach finding out what they believe can be known: The goal of the research is to provide an account of the "experiences, events and process that most people (researchers and participants) would agree are accurate" (Bradshaw, Atkinson, & Doody, 2017)

To enhance rigor within the project, strategies to address authenticity, credibility, and integrity were adopted, as proposed by Milne and Oberle (2005). Techniques to ensure authenticity include purposeful flexible sampling, accurate transcription, and content analysis. Not limiting interview times, and allowing participants the freedom to speak, promotes truthfulness of experience. Mindfulness around researcher bias (especially multi-roles as researcher/interviewer/data analyst) is a technique to ensure integrity (Milne & Oberle, 2005). Credibility is gained through triangulation of sources via recruitment that included participants from a range of genders, age, backgrounds, time in practice and training location (Milne & Oberle, 2005). Two main elements constant with Qualitative Descriptive studies in health care research

are learning from the participants and their descriptions, and second using this knowledge to influence interventions/policy (Bradshaw, Atkinson, & Doody, 2017).

Ethical Considerations

During the design of the study, several ethical challenges were considered including anonymity, informed consent, confidentiality, harm, and risk. Anonymity is particularly important due to the small size of the podiatry profession In New Zealand and the personal nature of the interview topics. Location of participants and specific clinic details were not included in any written work to protect the identities of research participants. All participants were fully informed of the purpose of the research and were under no obligation to continue in the research if they changed their mind at any point. The Auckland University of Technology Ethics Committee (AUTEC) reviewed the research proposal and granted ethics approval for the study, reference 20/166 (Appendix 1).

Recruitment

An invitation to participate in the research (Appendix 2) was emailed to all New Zealand registered podiatrists, via the PBNZ, and posted on podiatry social media sites. Podiatrists interested in the study were invited to contact the researcher and were sent a participant information sheet (Appendix 3) and consent form (Appendix 4). As of 31st March 2020, there were 430 registered podiatrists with 188 working outside the major centers (Auckland, Wellington, Christchurch). Purposive sampling was used to include participants from a range of genders, age, backgrounds (rural and urban), time in practice and training location.

Data Collection and Analysis

Data was gathered via interview using video conferencing (Zoom) or telephone. Before each interview, any questions were answered, and verbal consent was recorded. A separate recording was then made for the interview itself. Most interviews were between 45 and 80 minutes long. Interviews were semi-structured using an indicative guide (Appendix 5). Interview questions were broad and open-ended to gain a rich, straight description of participant's thoughts, feelings, and experiences (Neergaard et al.,

2009). The interview guide was based on existing themes relating to rural recruitment and retention: economic, professional, social, and external factors (Humphreys et al., 2009) and adapted from Allen et al. (2020) who researched medical specialist retention in rural Australia. The interviews were structured to allow participants to share other thoughts allowing new themes to be identified.

Data analysis ran simultaneously with data collection. As such dialogue from participant interviews influenced subsequent interviews and data analysis. Interviews continued until information power was reached (Malterud et al., 2016). Information power is determined by items such as study aim, sample specificity, use of established theory, quality of dialogue and analysis strategy (Malterud et al., 2016). Similar studies have sample size of between 12 and 22 participants (Allen et al., 2020).

All interviews were audio recorded and transcribed verbatim by the researcher. All data were anonymised prior to analysis. To ensure accuracy, each interview was played back whilst reading the full transcription. Recordings were then listened to repeatedly, and accompanying transcripts were read and re-read to immerse the researcher in the data. Manifest content analysis was used to analyse participant's responses (Graneheim & Lundman, 2004). Manifest content analysis provides an interpretation of the visible and obvious components of the data to provide further understanding of the phenomenon of interest. In this case the phenomenon of interest was factors contributing to recruitment and retention. Analysis was done using a three-step process described by Elo and Kyngäs (2008): preparation, organisation, and reporting. Preparation includes taking specific statements from transcripts, small enough to have contextual meaning, and identifying them as 'units of analysis' (data). A deductive approach was used where data were identified and coded according to the predetermined themes from the literature. Data were then organised into mutually exclusive categories and named using content-characteristic words (abstraction). Supporting excerpts from transcripts accompanied each category to represent the truthfulness of the data.

Chapter 4: Results

Interviews were conducted between June 2020 and October 2020. Nineteen podiatrists responded to the email invitation, representing 4.4% of the profession and 10% of podiatrists working in rural New Zealand. Fifteen interviews were conducted at which point information power was achieved.

Participant demographics

There were more female participants than male (n=11, 74%). Four participants were near or at retirement age and most participants were experienced practitioners, with just two being recent graduates (within 5 years). Many participants came from a rural background (n=11, 74%), and most were trained in Wellington (n=11, 74%). Most participants were currently practicing in rural areas (n=12, 80%), and a couple had left to practice in urban locations. One participant had recently left the profession.

Qualitative Analysis

Qualitative analysis of interviews revealed themes consistent with previous research: economic factors, professional factors, social factors, and external factors. Economic factors were related to remuneration only. Professional, social, and external factors were further categorized into sub-themes. Summaries of the themes are provided in Figure 1. No new themes were identified.

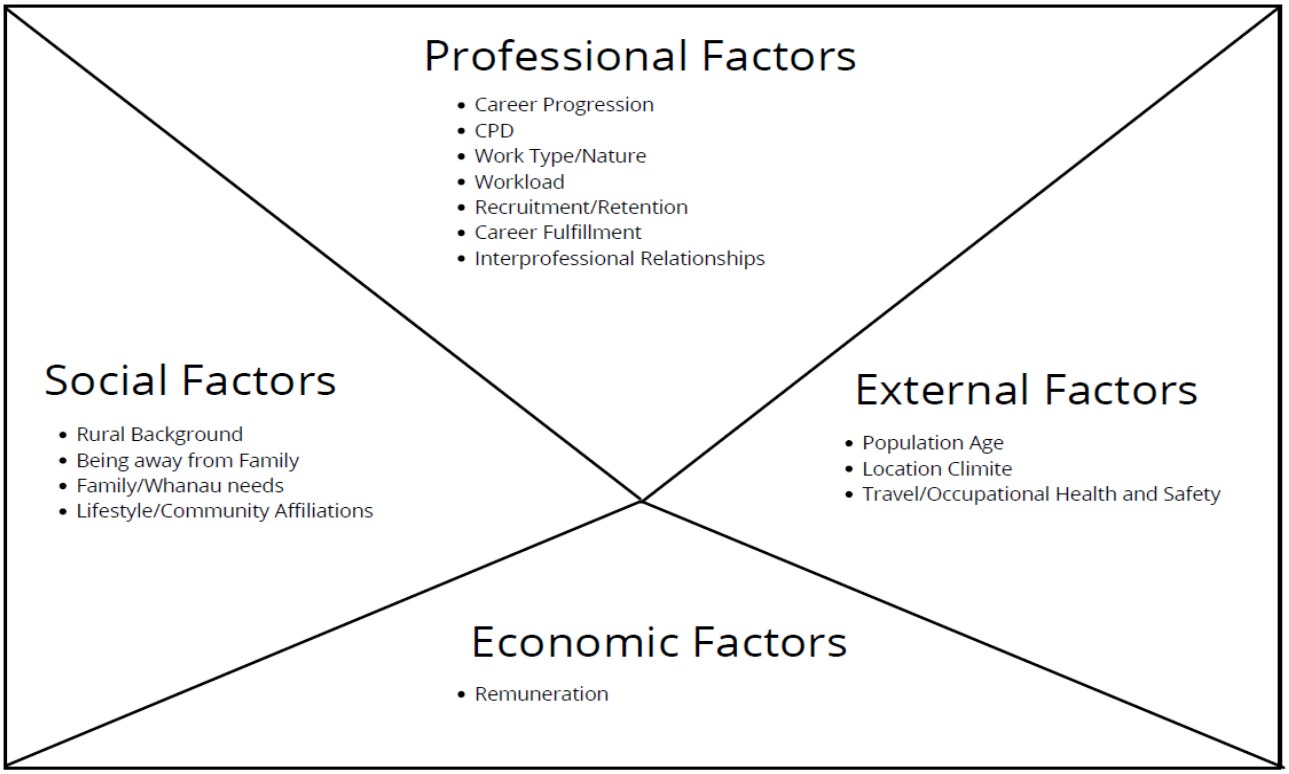

Fig. 1 Thematic Schema of factors influencing rural podiatrists' recruitment and retention

Economic factors

Most participants felt that remuneration in rural areas was either the same as what they could earn in an urban centre, or slightly better.

> *"I was paid [more] because it was not an Auckland job" (I.12)*

> *"[Remuneration] is a factor...[podiatrists] can earn really well here" (I.1)*

In contrast, one participant felt the opposite was true, especially in allowing for travel time and set up of rural clinic locations.

> *"In a rural area, you put many more hours in than you actually are getting paid for" (I.3)*

One participant stayed longer in their rural employment based on a wage incentive to do so.

> *"I wanted to leave but then was offered more money to stay in this rural location" (I.12)*

Another participant discussed that whilst remuneration in their rural practice was excellent, as an employer they felt that other factors were more important when assessing a candidate's suitability for a role.

> *"Remuneration is great but if that was a driving force then I'd be a bit nervous" (I.1)*

Professional Factors

(i) Career Progression

Only a few of the participants had a clear idea that they wanted to be podiatrists once they left high school, with many pursuing alternatives before deciding on podiatry as career.

> *"I was a registered nurse before, and I was fed up with the whole system, the bureaucracy and everything and I wanted to get out...I wanted to do something that I could work for myself" (I.14)*

> *"I was living in Auckland at the time, and I decided to study, and podiatry seemed like a good fit" (I.6)*

Most of the participants worked rurally from graduation.

> *"I applied for lots of jobs, basically. And... I was offered a few around the country...and we liked the area...I grew up (rurally) so I'm used to it" (I.6)*

However, a few participants sought to grow their experience before moving to rural practices.

> *"So I was very lucky, I worked over two years, in three different practices all quite different and had some really good experiences...and then I returned to New Zealand after that and set up my own practice (rurally) and felt very confident because I had worked in all these other practices and took the best of what I found...and when I was expecting my second child, I started employing somebody to work for me" (I.5)*

Having gained experience, most begun work in their rural location as self-employed podiatrists, keen to run their own practices.

> *"I was keen to work for myself, and have my own practice, and shape it" (I.1)*

"I just thought I'd quite like to do something where I could be self-employed" (I.12)

Two practitioners discussed how easily they found work rurally because of the shortage of other podiatrists willing to work in rural locations.

"One [rural clinic] came about because no one else wanted to do it....and I didn't mind a day at the beach" (I.2)

"Most people just want to work in cities, and sports practices" (I.14)

(ii) Continuing Professional Development (CPD)

All participants engaged in ongoing CPD to maintain their Annual Practising Certificate. However, whilst many completed CPD online, thus removing geographic barriers, a few of the participants still found it challenging from a rural location.

"CPD has become much more online now there is not as much of a geographic divide" (I.1)

"The CPD stuff was one of the straws that broke the camel's back for me...It's just become more and more stress" (I.12)

"It has been a struggle to access, it's been a struggle... it's not only the cost, but also taking the time off work, the accommodation, it is keeping yourself while you are there" (I.13)

One practitioner discussed at length the time involved engaging in CPD and stated that the COVID lockdown was beneficial for their CPD.

"The best thing about lockdown was the webinars you could just sit down and look at your own leisure" (I.12)

(iii) Work Type/Nature

The isolated nature of a rural client base comes with its own challenges. Participants discussed difficulties such as the ability to put together a robust treatment plan when they were only physically present (in front of their patients) every two months.

"You can't just leave someone for a month" (I.2)

Non-clinical specific elements were also highlighted.

> *"You can't just leave that day…whatever happens that day has to be dealt with that day, because you're in another place the next day (and) If somebody is driving for an hour and a half to see you, you can't say oh just come back tomorrow" (I.3)*

Professional isolation was discussed by a few of the participants.

> *"It's quite a lonely profession, especially when you are doing it on your own... It's really nice when we get together out of work hours... because who else do you talk to?" (I.12)*

One participant had experienced working collaboratively in one role after being in a more isolated clinic.

> *"Instead of being in a different place every day and not really knowing anyone I worked with, or being in a place where I was the only one present, I had the same receptionist every day and I had those kind of work relationships and that was massive...having a friendship inside work was a change...it was nice to have that" (I.10)*

The physical nature of rural podiatry was discussed by a few participants.

> *"It's the gear, the lugging around of all the gear" (I.5)*

On the other hand, the variety offered through rural podiatry clinics was cited as a main contributor to professional fulfilment.

> *"In the city practices people tend to find niche's but here you can do a bit of everything" (I.1)*

(iv) Workload

The most common theme that participants discussed was the high workload they encountered in their practices, due to the small numbers of podiatrists in the workforce rurally.

> *"There's not enough podiatrists in the area. Not even close…The more podiatrists in the area the less pressure on me!" (I.6)*

> *"You're so busy that you don't mind if they start their own company up because you are so busy" (I.10)*

"We could do with three or four extra [podiatrists]" (I.12)

Participants cited lack of availability of locum podiatrists as compounding workload pressures. Many described significant medical events (personally or in immediate family) which resulted in lengthy and unexpected clinic delays.

"There's no support, if you're sick there's nowhere to put them because you're already booked" (I.13)

"We haven't got that backup which is unfortunate" (I.5)

"There's no locums, there's no locums.... I don't do sick days" (I.6)

"There's no time to be sick...I had about 2 days off in 11 years" (I.12)

"I never really went away...Any time I had off I worked around Christmas or long weekends...I've never had the terror of trying to find a locum (I.14)

(v) Recruitment

Most participants worked in isolation, and despite high workloads have not tried to recruit other podiatrists to work with them.

"I don't employ, because I could only offer one or two days, and no-one would relocate for such a small amount of work. I'm too busy for just me, but not busy enough to justify employing someone full time" (I.2)

"I've never looked for anybody" (I.14)

Of the few participants who do employ, all of them talked about the difficulties in doing so.

"[We've been] advertising for two years and haven't had anyone apply...I never had any trouble in Auckland hiring anyone...but it's different here, there's just not anyone to even pass the work on to (I.12)

"We're very very very short of podiatrists...I've been trying to retire for four years. I've worked at least 2 years longer that I planned" (I.12)

"Our strategy in terms of attracting people to come here [is] providing almost an apprenticeship... We acknowledge that we are not going to have people here forever... If we can provide them with a very structured path towards their next stage of their career that's important...They may or may not end up here...we accept that" (I.1)

A few of the participants discussed the need for more graduate podiatrists.

"The shortage has to be addressed at the beginning" (I.12)

A couple of the participants felt that a non-Auckland location for a podiatry school may benefit rural podiatry numbers.

"If it was somewhere more central, not Auckland, Auckland is too expensive" (I.12)

(vi) Employee retention

Low retention of colleagues/employees was discussed by those participants who have had them.

"If we have them for two years that's exceptional (I.1)

"I had six podiatrists (including two new graduates) in the last year years – one lasted 12 months, one lasted 13 and I put hours and hours into helping them" (I.10)

One participant reflected that podiatry has a high attrition rate.

"There's such a drop out in podiatry...the number of people who leave appears to me to be huge" (I.5)

(vii) Career fulfilment

Of the participants who continue to practice in rural podiatry, all discussed career fulfilment gained from their interpersonal relationships with patients.

"I love the people. They appreciate me, they want to get better, its relaxed and comfortable and I feel like I'm giving something back – and I didn't get that in my urban practice" (I.14)

Conversely one participant cited the complex nature of rural interpersonal relationships as one reason they chose to leave rural practice.

> *"Being in a rural area is too complex and it extracts too much from you, personally" (I.5)*

Another participant discussed how they have experience compassion fatigue and felt that it was compounded by lack of peers.

> *"I didn't realise compassion fatigue was a phenomenon among allied health professionals...I think it affects us because there are so few on the ground" (I.12)*

(vii) Interprofessional Relationships

Whilst working with other podiatrists is often not possible for rural practitioners, many participants felt the close-knit nature of rural healthcare was a positive factor of rural podiatry practice.

> *"It's one of the strengths of our community, is that we are very well connected. The referral pathways are very close...The patient's journey is ...very efficient...And in terms of learning, we can get you in observing orthopedic surgery and having time with other specialists...is one of the advantages" (I.1)*

> *"The nurses have been the same for years...we all work in together, it's really nice...we share information, and we talk to each other, and the doctors are the same...they're very well set up for a small place" (I.5)*

> *"Because I work there and I know them all, and because I was a nurse it also helps, anything that is going on, I am involved" (I.14)*

> *"The receptionists were the age of my parents, and they were like my work mums...If it wasn't for the people, I don't think I would have lasted" (I.10)*

Social Factors

(i) Rural background

Nearly all of the participants in this research came from a rural background or had family connections in the rural area they chose to work in.

> *"That was where my family was...This became my new home" (I.1)*

> *"We were always going to come back, and I was going to retire here" (I.3)*

> *"I moved (rurally) because (family) was there" (I.10)*

> *"I have whanau in the area" (I.8)*

The desire for a rural lifestyle was discussed by several participants.

> *"Auckland was the last place I'd ever dream of having a child, So I basically came home to have family support" (I.12)*

> *"I'm not a city person...I'm a rural person and I'm close to my family" (I.14)*

(ii) Away from family

One participant talked about the difficulties in moving to a rural area away from their own families.

> *"I'm not near family, and that's hard" (I.7)*

Another participant discussed the pros and cons of rural practice.

> *"There are lots of things that are attractive about rural areas, the people, the lifestyle etc., but it is extremely hard because you are on your own" (I.11)*

(iii) Family/whanau needs

On one hand a couple of participants identified themselves as being drawn to their rural locations through their partner's work.

> *"We liked the area. We'd seen it, been there before for (other) work" (I.6)*

"Me and my partner can both get jobs, that pay the same anywhere, but it is way cheaper to buy a house here" (I.11)

On the other hand, a couple of participants felt that low recruitment rates of podiatrists to rural areas was due to lack of employment opportunities for partners.

"To move (rurally) if you are single is easy, if you are married, there are no jobs for your partner" (I.11)

One participant discussed this point at length, observing that podiatrists are not in rural areas because of the high numbers of female practitioners.

"[There is a] social norm that dictates that the male partners employment directs where the family settle" (I.3)

Whilst some participants viewed rural educational opportunities for children to be superior to urban areas, others discussed this as a difficult transition, with one family relocating to an urban center for a specific school.

"We assumed all schooling around NZ was the same, and it's not" (I.6)

"I work rurally, but we live (more urban) because of (our children's schooling)" (I.8)

"We have a young family...we couldn't be in a better place I think...High schools here are exceptional" (I.1)

(iv) Lifestyle/Community Affiliations

One participant, who moved to a rural area for work, found integrating a little difficult to begin with.

"There is definitely a click group here...if you haven't lived here... for 5 generations, you are not a local... but there are fewer of them as they are dying off (I.6)

However, most of the participants discussed strong community affiliations with their rural communities.

"We integrated into the community here…we put our feet down, and then our roots down, and we'll stay. The kids will grow up and move away and we'll just stay" (I.6)

"It's building that rapport and made me feel really part of that community. I know the people at the supermarket... I see people walking around and they may be the doctor, or the receptionist, or just my patients, you see them around the town, and you stop and have a chat. So, I feel part of their community now... I enjoy going, it's not a hassle" (I.5)

"But I just love my patients over there, they're a breed of their own...and they're so grateful that they've got someone to help them. They're real. They appreciate your service" (I.14)

"They're very welcoming, because I was a podiatrist which is a needed trade, they were very welcoming" (I.6)

External Factors

(i) Population Age

The composition of the community may be difficult for some practitioners who are new to a rural area. One participant cited lack of younger people as a barrier to recruiting new graduates into rural podiatry.

"We do have a void, a vacuum of people of 18-22 in this community and I don't think that is unusual as they are off on OEs or at uni (I.1)

Another participant, who did move rurally as a young new graduate, did find this a negative factor.

"It was hard to make friends, I was very young compared to much of the population" (I.10)

(ii) Location/Climate

Some participants discussed how the rural lifestyle was a major contributing factor to personal fulfilment.

"I love the outdoors, cost of living, cost of housing. There so many positives" (I.1)

"It is such a nice area to live" (I.12)

(iii) Travel / Occupational Health and Safety

Travel, driving and the physical nature of rural work was discussed at length by many of the participants.

> *"It's not just the driving, it's the packing up of the gear or the lifting of the gear...When I left, I did not miss the travel...driving is concentration, it would take me a couple of days to recover" (I.5)*

> *"The main thing was the travel...and there were some safety aspects about the rural travel...especially in the wintertime because the weather can change so quickly.... I had to be prepared to have my family in order and have things in my car (incase the road closed) ... the roads are quite risky... I spent sometimes an hour to get to one house just to turn around and come back 20 minutes later" (I.8)*

> *"It's not far, it's only an hour and a half each way...but sometimes especially in the middle of winter I think urgh I don't want to go there..." (I.5)*

Conversely, one participant loves this element of rural practice, stating

> "I like driving" (I.14).

For other participants, who work rurally but not in multiple locations, the travel (or lack of it) is a highlight compared to perceived commute times for urban based clinicians. One participant who has left rural practice discussed how coming to a work-ready setting (with no travel or clinical set up required) is a highlight for them, and something they take joy from in contrast to their rural practice experience.

> "it's all here...the instruments are all here, the room is ready" (I.5).

Chapter 5: Discussion

This study was the first to explore factors influencing recruitment and retention of the rural podiatry workforce in New Zealand. Qualitative analysis of practitioner interviews revealed professional factors and social factors such as rural background has the strongest influence for recruitment and retention of rural podiatrists in New Zealand. This is consistent with prior work in the rural allied health workforce in Australia (Allen et al., 2020). This is of particular importance as the podiatry profession in Australia and New Zealand are closely aligned with practitioners able to register to practice in both countries under a trans-Tasman agreement (PBNZ, 2019). External and economic factors which positively and negatively influence recruitment and retention were also identified and were consistent with prior work.

Professional factors

Overall, professional factors appear to have the most influence on recruitment and retention of rural podiatrists in New Zealand. This is consistent with recent work involving medical specialists in Australia that found professional factors were more important than financial, social, or external factors in recruiting and retaining rural staff (Allen et al., 2020). Clinical exposure, an enjoyable patient base and a sense of belonging to a community were mentioned by nearly all participants. This is consistent with much of the literature on factors influencing retention in rural practice (Allen et al., 2020; May et al., 2017; Campbell et al., 2012, Godwin et al., 2016, Kearns et al., 2006). In the current study, participants that had left rural practice described how they missed these factors in their new roles and practice locations. Conversely one participant cited the complex nature of rural interpersonal relationships as a reason for leaving rural practice.

Previous research recognised professional isolation as a factor negatively influencing retention in rural practices (Godwin et al., 2016; Du et al., 2019; Struber, 2004). Whilst working with other podiatrists is often not possible for rural practitioners, in the current study some participants felt the close-knit nature of rural health care was a positive of rural podiatry practice. In contrast, others felt isolated with many participants describing the lack of podiatry colleagues, both within their own workplace or more geographically, as difficult. The isolated nature of a rural client base also comes with its own challenges.

Participants discussed difficulties such as the inability to put together a robust treatment plan when they were only physically present in-front of their patients every other month. Such difficulties can affect a practitioner's career fulfilment as it inhibits feelings of satisfaction of a 'job well done.' Ongoing work must be done by the profession to build professional networks which can ensure continuity of care in isolated rural locations and provide collegial support to practitioners.

High workloads, often due to a lack of colleagues, is also a factor influencing attrition of the rural podiatry workforce. Participants cited lack of availability of locum podiatrists as compounding workload pressures. Many described significant medical events (personally or in their immediate family) which resulted in lengthy and unexpected clinic delays. The feeling that "there's no time to be sick" came up in more than one interview and is a concerning theme. The workforce shortage certainly leads to stress for podiatrists in rural areas and thinking laterally it is important for podiatrists to have skills to cope with stress. Workload and stress have been cited in literature as a contributing cause of attrition in rural areas (Chisholm et al, 2011).

Historically CPD difficulties have been cited as factors influencing rural workforce attrition (Garrett, 2008). However, in the current study, many participants acknowledged a shift away from this as a difficulty due to the increasing availability of online CPD and professional support. Only one practitioner still felt a geographic divide for CPD and cited the fact that in-person events are often in main centres, which incur costs in terms of time off work, travel, and accommodation.

Social factors

The current work illustrates the importance of being part of a community, contributing to that community and enjoyment of a rural lifestyle as critical factors in recruitment and retention. This supports findings in other research that finds social/lifestyle factors play notable role in retention of the allied health workforce (Cosgrave, et al., 2020). Nearly all of the participants came from a rural background or had family ties to the rural location where they work. This is unsurprising, given much of the literature on the rural health workforce identifies rural background as a leading factor in rural recruitment and retention (Kataoka et al. 2018; Kent et al., 2018; May et al., 2017; Hogenbirk, 2015; Playford et al., 2006; Struber, 2004). Indeed,

research conducted by Hogenbirk and colleagues in 2015 used logistic regression modelling to show that rural background is a strong predictor of rural workforce placement, especially among recent graduates (Hogenbirk et al., 2015). Given the current difficulties in fulfilling rural podiatry workforce needs, and the known 'rural background effect,' targeted recruitment of undergraduate podiatry students from rural areas is warranted.

Nearly all the participants in this study arrived in rural practice from graduation, or soon after. Participants who were employers described difficulties in recruiting podiatrists and most positions were filled with recent graduates, a finding consistent with previous health workforce literature (Struber, 2004). In addition, maintaining new graduate employees was cited as a challenge, with most leaving within 2 years. Retention issues are not unique to podiatry, or to New Zealand. According to the literature, the attrition rate of newly graduated health practitioners is higher than other areas (Kramer et al., 2013). Research from Struber (2004) and Chisolm et al. (2011) found that the average length of stay in a rural Australian health practice is 13-18 months. The comments made by participants in the current study, when discussing retention of employees and/or podiatry colleagues, signaled a comparable situation in New Zealand. Failure to address the numbers of suitable graduates for rural podiatry workforce supply leaves our current rural podiatrists at risk of not being able to service their communities or meet the health needs of their regions.

The current research found division among participants when discussing educational opportunities. Whilst some participants discussed perceptions of better educational opportunities for children as a factor for influencing their desire to leave rural practice, other participants in the current study cited specific schools within their rural location as a factor influencing ongoing retention. The perception of suitability of educational providers differs for different families, but there is a consistent theme that families may consider moving locations for perceived educational opportunities elsewhere and this has been touched on in previous literature (Robinson & Slaney, 2013).

Participants were also divided on the role employment opportunities for partners played in factors of recruitment and retention. Multiple studies cite limited job opportunities for partners as a factor in attrition (Godwin et al., 2016; Johnson et al., 2019). Whilst some participants saw employment opportunities as

limited for their partners, others were recruited rurally due to their partners employment or connections in the rural locations. One participant discussed this point at length, highlighting how podiatry is 'movable,' and with such demand for services a podiatrist can easily find work and therefore move to a location that is most suitable for their partners employment. Whilst this can be seen as a positive thing for individual podiatrists, it is yet another factor that can have a negative impact for rural workforce supply, where there may be fewer employment opportunities for partners.

External factors

Findings from this research suggest that the composition of the community may be difficult for some practitioners who are new to a rural area. One participant, who did move rurally as a young new graduate, discussed how they found it difficult to 'fit in' to their new community due to their age. Another participant cited lack of younger people as a factor causing difficulties in recruiting new graduates into rural podiatry. External factors such as community composition are acknowledged as non-modifiable factors influencing recruitment and retention (Humphreys et al., 2009). To support retention, suitability of candidates (both for undergraduate programmes and when employers are selecting employees) must be considered.

Travel, driving and the physical nature of rural work was discussed at length by many of the participants. Previous literature found that excessive travel can contribute to burnout and attrition (Campbell et al., 2012; Du et al., 2019; Garrett, 2008; Struber, 2004). For some participants, who work rurally but not in multiple locations, the travel (or lack of it) is a highlight compared to perceived commute times for urban based clinicians. Whilst a couple of participants thrived on the variety travel afforded them, others found the excessive travel needed to get to more remote locations resulted in exhaustion. Given the importance of job-satisfaction among rural health workers, it is essential that travel, driving and the physical nature of rural work is acknowledged, and mitigated where possible. Strategies that workplaces produce to mitigate this may help with job satisfaction and therefore retention.

Financial/Economic factors

Financial remuneration was not a primary factor in recruitment or retention decision making among participants in the current study. Indeed, whilst financial incentives are mentioned in the literature, it does

not appear to be a single contributing factor to rural recruitment and retention (Johnson et al., 2019). In 2020, Allen and colleagues published a study titled, “It’s mostly about the job’ – putting the lens on specialist rural retention” which found that financial remuneration was not a primary factor in retention decision making, with more importance being placed on other (professional, social, external) factors. In the current study, most participants felt their remuneration was good or above average and while many considered this a bonus of rural podiatry practice, it was not believed to be as important as other factors.

Limitations

Use of the Podiatrist Board registration email list for practitioners ensured a wide reach for participants, however if podiatrists are no longer registered or use social media then they may not have had an equal opportunity to participate. More interviews of the leavers are critical to fully understand the perceived attrition rate among rural podiatrists. A further limitation of this research is that is only interviews current/former rural podiatrists. Due to the absence of data from podiatrists with no desire to work rurally, the findings are skewed to a smaller pool of podiatrists.

A further limitation of this study is that the researcher was the sole data analyst/coder and is a rural Podiatrist which surely introduced inherent bias. Whilst a satisfactory participation number was sought, further research into what drives rural students into podiatry (or not) would prove a greater understanding of the rural podiatry health workforce.

Chapter 6: Recommendations

Based on this study and given the significant role podiatry can play in achieving greater health outcomes, it is essential that a strategic approach to workforce planning and retention by health policy makers and education providers is undertaken if rural podiatry is to meet the needs of rural New Zealand. In the short term, encouraging overseas podiatrists to come to New Zealand may help. For the long term, further work needs to be done around recruitment of rural students from within New Zealand. There is a clear need for further research in this space – why are they (not) choosing podiatry as a career? Is it an awareness of the course? The location? Understanding of the profession? Our sole podiatry education provider must start targeting rural students.

Workload coupled with travel/occupational health and safety concerns cannot realistically be removed, but acknowledgement of them and any strategies that workplaces can produce to mitigate them may help with job satisfaction and therefore retention. Ongoing discussions around professional burnout/compassion fatigue raise suggestions that as a profession we should look in to professional/clinical supervision (Beddoe & Davys, 2016).

Podiatry as an allied health provider is a small but important player in the ongoing health and wellbeing of New Zealanders. Further research into the role of podiatry within a New Zealand health context is essential to support growth of our profession so we can meet the needs of our population.

Chapter 7: Conclusion

There is little doubt from the literature that small countries like New Zealand are struggling with health workforce shortages. The New Zealand podiatry workforce is in crisis and of particular concern is the small number of podiatrists working outside of major cities. This research provides the first insight into factors contributing to rural podiatrist's recruitment and retention in New Zealand. The importance of a rural background, and strong community connections are undeniable. Retention of staff is vital, but for those that employ, recruitment is challenging with few or no applicants from within the New Zealand podiatry pool. Policy makers and universities looking to recruit, train and retain an effective health workforce must work together to address the workforce shortage of rural podiatrists in New Zealand.

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Appendices

Auckland University of Technology Ethics Committee (AUTEC)

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18 June 2020

Angela Brenton-Rule
Faculty of Health and Environmental Sciences

Dear Angela

Ethics Application: 20/166 **'No mean Feet' - Recruitment and Retention of the Rural Podiatric Workforce in New Zealand: Primary Care Podiatry perceptions**

We advise you that a subcommittee of the Auckland University of Technology Ethics Committee (AUTEC) has **approved** your ethics application.

This approval is for three years, expiring 18 June 2023.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.

AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through http://www.aut.ac.nz/research/researchethics

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: erinbeeler@hotmail.com; matthew.carroll@aut.ac.nz;

RE: Invitation to take part in Exciting New Research.

Dear Colleague,

Hi! I'm Erin Beeler, a Podiatrist from Whakatane.

Anyone who knows me will agree that I am passionate about Podiatry, and believe that Podiatrists have a lot to offer our communities.
I have seen first-hand the positive impact a reliable podiatry service can have on rural communities. However, in New Zealand, there is a shortage of podiatrists – especially in rural areas. As a rural podiatrist and employer, I am interested in exploring the perspectives and experiences of rural primary care podiatrists' around their current and/or former work setting.

This research project is the final part of my Master in Health Practice at AUT. For the study I am recruiting podiatrists who are either a **current** or **former** employee of a **rural primary care podiatry** clinic. The research involves a one-off private interview via zoom. The interview will be conducted by me and I will ask questions to explore participants experiences in rural podiatric practice. I realise that New Zealand is small, and I can assure you that no identifiable data will be included in the final report or be accessible by anyone other than myself or the research team (Dr Angela Brenton-Rule and Associate Professor Matthew Carroll).

If you would like to volunteer for the study please contact me at erinbeeler@hotmail.com. A participant information sheet with full details will be sent to you and you will be given time to consider the opportunity to participate in the study. I will be happy to answer any questions you may have about the study without any obligation to participate.

This study was approved by AUT Ethic committee (AUTEC ref). The findings from this study will provide insight into the recruitment and retention of podiatrists in rural New Zealand. It is important and exciting new research, and the first of its kind in New Zealand. Thank you considering this invitation.

Kind regards,

Erin Beeler

Participant Information Sheet

Date Information Sheet Produced:

09/06/2020

Project Title

'No mean Feet'

Recruitment and Retention of the Rural Podiatric Workforce in New Zealand: Primary Care Podiatry perceptions.

An Invitation

Hi! My name is Erin Beeler and I am a Podiatrist in Rotorua conducting research as part of a Masters degree. I am interested finding out more about other rural podiatrists in New Zealand. Have you worked rural NZ? You may have stayed a short time, or a long time – I would love to hear from you.

What is the purpose of this research?

The role of podiatrist is important to the health and wellbeing of our rural communities. However, in New Zealand, there is a recognised shortage of podiatrists. Furthermore, the ability to recruit and retain primary care podiatrists in rural areas is thought to be challenging. The proposed research will investigate rural primary care podiatrists' perspectives around their current and/or former workplace. Semi-structured interviews will be conducted with open-ended questions to better understand the factors contributing to recruitment and retention of rural primary care podiatry in New Zealand. The findings of this research may be used for academic publications and presentations.

How was I identified and why am I being invited to participate in this research?

I am inviting all Podiatrists with experience working in rural New Zealand to participate. This information sheet has been sent to all Podiatrists who have responded to the first invitation (either the Registration Board email, or the Facebook post). If you have worked for me at Eastern Bay Podiatry/Podium Podiatry and Footwear, sorry but I cannot include you in this research project.

How do I agree to participate in this research?

If (after reading this Information Sheet and the attached consent details) you would like to participate, please respond, via email to me directly at erinbeeler@hotmail.com.

Once I have received your email reply, I will set up a time to interview you via zoom. This interview will be in two parts: The first will be a short audio recording of your consent, followed by the second audio recording of the interview.

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

What will happen in this research?

You will be invited to attend a zoom meeting with me which will last up to 60 minutes. As explained above, the interview will be in two parts: The first will be a short audio recording of your consent, followed by the second audio recording of the interview. You will be asked to engage in a brief conversation, and I will be guided by interview prompts/questions around recruitment and retention.

What are the discomforts and risks?

There are no anticipated discomforts or risks associated with this research project. You will be given some broad questions to answer. The questions will be around rural recruitment and retention and your perceptions around this specific to you and your current or previous rural location. Your participation in this research is voluntary, and you can

withdraw from the study at any time. If you choose to withdraw from the study, all identifiable data belonging to you will be removed.

How will these discomforts and risks be alleviated?

There are no right or wrong answers and your responses will be anonymised. If you feel that you do not want to answer any of the questions, that is acceptable. Should you wish to withdraw from the project, you are able to do so at any time, and no further questions will be asked.

What are the benefits?

Your participation in this project may help you reflect on your own involvement in Podiatry within New Zealand. You will have the opportunity to express your feelings and points of view. This knowledge is potentially advantageous as it may provide insights as to your own personal and professional goals around your work and work/life balance. You will also be contributing to the first research into the New Zealand Podiatry workforce ever undertaken.

This research project is part of my Masters degree and will provide me with a better understanding of the recruitment and retention of rural podiatry workforce in New Zealand. This research could improve management of recruitment and retention of the podiatric workforce across the country and may even benefit national workforce planning and funding through agencies such as Ministry of Health and Ministry of Business Innovation and Employment.

How will my privacy be protected?

Your privacy is important and will be respected. I will be the only one who may know your full name. Only the research team (myself and my supervisors, Dr Angela Brenton-Rule Associate Professor Matthew Carroll) will have access to your First name and email address. Any information given to me remains confidential under the terms of the Privacy Act 1993, and no information will be disseminated to a third party without your consent.

What are the costs of participating in this research?

There is no financial outlay for your participation. The only cost to you is your time (approximately one hour).

What opportunity do I have to consider this invitation?

You have 14 days in which to consider this invitation. If I have not received any confirmation or information, I will send one reminder. I understand that your time is precious, so if after the reminder, I have not heard from you, I will refrain from sending any further correspondence, and will accept that you do not wish to participate.

Will I receive feedback on the results of this research?

Of course! I will send all participants some a brief summary of my findings. If you would like to be sent a full copy of my research paper, please let me know and I will happily send it to you once it is complete.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Angela Brenton-Rule, *angela.brentonrule@aut.ac.nz* , +64 9 921 9999 ext 7215

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz* , (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Erin Beeler, *erinbeeler@hotmail.com,* +21530831

Project Supervisor Contact Details:

Dr Angela Brenton-Rule*, angela.brentonrule@aut.ac.nz*, +64 9 921 9999 ext 7215

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTEC Reference number *type the reference number*.

Consent Form

Project title: ***'No mean Feet' - Recruitment and Retention of the Rural Podiatric Workforce in New Zealand: Primary Care Podiatry perceptions.***

Project Supervisor: ***Dr Angela Brenton-Rule***

Researcher: ***Erin Beeler***

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 09/06/2020
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that if I withdraw from the study then I will be offered the choice between having any data that is identifiable as belonging to me removed or allowing it to continue to be used. However, once the findings have been produced, removal of my data may not be possible.
- ○ I agree to take part in this research.
- ○ I wish/do not wish to receive a summary of the research findings

If you agree to participate in this research, your consent to the above statements will be audio recorded and stored separately to any other data. To do this, the researcher will record your interview in two parts: The first, a short recording of the above statements with your verbal consent included, and then a second recording that will contain the actual interview. This will ensure your privacy is maintained.

Approved by the Auckland University of Technology Ethics Committee on type the date on which the final approval was granted AUTEC Reference number type the AUTEC reference number

Note: The Participant should retain a copy of this form.

Interview Protocol

Preamble

Thank you for agreeing to participate in this research which is being conducted to gather information on the recruitment and retention of rural primary care podiatrists in New Zealand, and the reasons why podiatrists leave or remain working in these locations.

Recording Instructions:
If it is okay with you, I will be audio-recording our conversation. The purpose of this is so that I can get all the details but at the same time be able to carry on an attentive conversation with you. I will be compiling a report which will contain all participants' comments without any reference to individuals. All information is strictly confidential, and the study findings will be reported so that no individuals can be identified. I assure you that all your comments will remain confidential.

Consent Form Instructions:
Before we get started, I would like to confirm that you have read the Participant Information Sheet, and the consent details. I need to have an audio-recording this consent, and it needs to be stored separately to any other data, so I will record it, then press stop, before re-starting the recording for the interview. Is that ok?

Interview Guide Questions:

What is the size of the rural town you worked in?

Are you a "stayer" (you stayed here more than 2 years) or a "leaver" (you left in under 2 years)?

Where did you complete your podiatry qualification?

- Overseas or in NZ?

What prompted you to apply for a position in this rural location?

Did you have any previous connection (family, study, lived in) with this rural location when you applied for the position?

Where were you employed prior to starting this position?

- New Grad, Rural or metropolitan?
- If metropolitan, had you previously ever worked in a rural area?
    - If yes, where had you previously worked?

When did you commence employment with this position?

Did you have a partner/family when you first joined?

- If yes, did your partner/family move with you to this rural location?
- If yes, how did you partner/family feel about the move to this rural location?
- If yes, did you partner/family find any challenges adapting to life in this rural location?
    - What types of challenges?
- If yes, did you partner/family find life in this rural location attractive?
    - What was attractive or unattractive and why?

If you are an overseas-trained podiatrist:

- How many years had you been living in NZ when you joined this rural team?
- Did you have any restrictions on your location or registration when you joined?

What specific position did you commence in at this rural location?

- Were you a locum?

Can you please tell me about your first role at this location?

- Was it what you expected?
- What were the appealing aspects of the role?
- What was unappealing?

Did you move into any other positions while at this location? If so, please tell me about those positions.

Please tell me about your typical working hours at this rural location when you first joined and over your time working there?

- Approximate number of hours worked
- Was the number of hours you worked when you first joined what you expected?
- How do you think your working hours compared with other health services?
- How frequently were you, and are, you rostered on-call?
- How did the on-call working compare with other health services?

How many years, in total, did you work for this rural location?

If you previously worked in a major metropolitan centre in NZ, how did the workplace rural NZ compare?

- Staffing levels
- Workload
- Hours of work
- On-call duty
- Remuneration
- Variety of work
- Availability of support to provide clinical care
    - Diagnostic services
    - Patient support services – allied health
    - Infrastructure
    - Equipment
    - Mentorship
    - Working relationships - leadership, support, mentorship,
- Availability of training opportunities
- Access to CPD opportunities
- Career progression opportunities

How did living in rural NZ impact upon you and your family:

- Proximity to partner (if partner lives elsewhere)
- Proximity to extended family
- Proximity to friends/social supports
- Schools for children
- Cultural and community facilities
- Entertainment
- Outdoor or sporting facilities

- Climate
- Environmental attributes of the region
- Shopping
- Proximity to mainland cities or capital city?

What were the main factors in deciding to stay/leave rural podiatry?

- Work
- Family
- Social support
- Community
- Workplace
- Lifestyle
- Environment
- Climate

Do you intend to remain working in (urban/rural) NZ for the foreseeable future?

- If yes, what are the factors that will keep you here?
- If no, what reasons are underlying your decision to move elsewhere?

Can you recall a time where you felt most fulfilled in your work?

- If yes, what were the factors that you think most contributed to this?
- If no, why not?

Is there anything else you would like to add?