scope

Contemporary Research Topics

health & wellbeing 5

November 2020

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health & wellbeing 5:
Collaboration

November 2020

Scope: Contemporary Research Topics (Health & Wellbeing) 6, "Islands" (November 2021)

The sixth issue will provide the opportunity for authors to consider, discuss and debate how islands are understood in relation to health and wellbeing and can be considered as, a land carrying capacity; surrounded by water; positioned within a certain time and space; connected/disconnected; isolated; having similarities/differences/challenges; a place to relax; to travel to/from and a community.

The sixth edition will publish in conjunction with nursing, occupational therapy, midwifery and sport, which attempt to (re)build and (re)foster dialogue.

Submissions for *Scope (Health & Wellbeing)* 6, "Islands" are invited from researchers, educators, industry, writers, theorists and historians. Submissions should be sent in electronic format by 30 June 2021 for review and potential inclusion in the annual issue to Associate Professor Jean Ross (Editor-in-chief) at Otago Polytechnic | Te Kura Matatini Ki Otago, Private Bag 1910, Dunedin, New Zealand at jean.ross@op.ac.nz. Please consult the information for contributors below or online versions for examples. Peer review forms will be sent to all submitters in due course, with details concerning the possible reworking of documents where relevant. All submitters will be allowed up to two subsequent resubmissions of documents for peer approval. All final decisions concerning publication of submissions will reside with the Editor. Opinions published are those of the authors and not necessarily subscribed to by the Editors or Otago Polytechnic.

Please refer to author guidelines for submissions at https://www.thescopes.org/contributors. For further questions about submissions please contact the Editor-in-chief at jean.ross@op.ac.nz.

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Contemporary Research Topics

CONTENTS

COLLABORATION IN ACTION:
2020 AND THE YEAR OF COVID-19

Ian Crabtree and Mary Butler

This edition of *Scope:* Contemporary Research Topics, Health & Wellbeing, 5 focuses on collaboration within healthcare environments and amongst healthcare professionals, organisations, communities, populations and clients. The development of the Journal is a collaboration across the College of Health and draws on the experiences of other disciplines nationally and internationally. You will see collaboration and interprofessional research papers from a wide range of health professionals from third-year undergraduate nursing and occupational therapy students to registered non-health and health professionals from across the health spectrum including nursing, occupational therapy and medicine.

The whole Journal is a good example of how 'many hands make light work'. The initial intention of this Journal was brought together to exemplify the theme of collaboration in support of a recent international conference entitled "Navigating the future of nursing together through education and practice". This event focussed on themes relating to Practice, Purpose, People and Place which is particularly apt in the year of 2020 and COVID-19. The effect of lockdowns locally, nationally and internationally has shown collaboration in the health environment at its very best in working with patients/clients and their whānau. This has also been a year to showcase how health professions and communities in all fields of practice have worked collaboratively as well as inter-professionally in supporting each other during what has been a very stressful and emotive time. While 2020 has also been the year of the International Nurse and Midwife and this celebration has been particularly poignant as a demonstration of how well we all work and interact together collectively across our professional groups and communities.

Worldwide, there is a recognition that interprofessional learning and collaboration in the healthcare environment results in better care and outcomes for patients and clients. Collaborative practice, for example, has been shown to improve health outcomes for people with chronic conditions including non-communicable diseases such as chronic heart and respiratory conditions.

There are many ways of understanding the concept of collaboration and artist Hannah Joynt gives an interpretation in her work presented on the cover of this Journal. "Swan boats" are used as a symbol that speaks to the absurdity of maintaining all the small ordinary things (like swan boats) while living through the time of COVID-19, which is represented by the exquisitely realised natural detail of the pond in a wilderness. The success of the small collaborations that the papers in this Journal represent have all come through the time of COVID-19, this most difficult year, when types of collaboration happened both because of and despite all that has happened. Putting together a Journal in this time reflects achievement in the face of significant difficulties, and in that way, it is a 'small ordinary thing', an absurdity like the swan boat, floating against a wondrous and incongruous background of global connectedness created through the medium of a virus.

Within this edition of Scope, connections that have been formed across countries are demonstrated with the opening paper written by Professor Kathie Lassiter who reflects on her academic career and the collaborations she has made throughout her journey both formally and informally. Some of the collaboration from across the globe including the United Kingdom demonstrates how we can work collaboratively in achieving outcomes for differing communities. Technology and time zones are critical elements of collaboration that have become even more obvious during this year of COVID-19.

One of the key themes that we can see through all these papers is how collaboration brings about more engagement in the issues that people are working on. In a Journal arising from an educational institution, it is unsurprising that papers from undergraduate students demonstrate compassionate collaborations between staff and students. Educators use the opportunity of publication as a way of opening doors for students and helping them to get to another level. The undergraduate students have chosen to publish articles that have been written as part of their academic journey within their chosen field of nursing or occupational therapy. These papers demonstrate their passion for areas of interest and fields of health and show how collaboration and interprofessional relationships help to improve health outcomes for a variety of patients and clients. Notably, the student reflections on bicultural health practices are a key expression of what collaboration increasingly means in Aotearoa/New Zealand.

Unsurprisingly in a Journal arising within an academic institution, studies also represent the ongoing collaboration between education and the community. The best education occurs when students can do work-based learning in the community. These collaborative relationships are often underpinned by long term connections built between educators and the community, where the value of student projects is acknowledged over many years. Several papers reflect community-based research, demonstrating a mature approach to community collaboration on the part of third-year students.

Other papers reflect the research and reflections arising from the postgraduate student body. The work of doctoral students is usually embedded in the workplace, which means that their research methods and topics had to rapidly change to reflect the COVID-19 related shifts in practice. Several of the papers are the result of critical and creative pivots, which demonstrate how such transitions in thinking can become core to the process of doctoral research.

The collaborations are also between disciplines and some papers reflect creative collaborations between health and non-healthcare disciplines. These include, for example, collaborations between product design and health professionals including occupational therapists and optometrists in an innovative project involving vision screening and schools. There is also an article about how health can be understood in the workplace, from the perspective of veterinary clinics.

The response to COVID-19 in Aotearoa/New Zealand was all about working together as a team. The response worked because there was a fundamental trust that underpinned the community response. Trust is the fundamental value that strengthens effective collaboration. It is demonstrated in every paper in this Journal at multiple levels and through these many articulations, we begin to see how collaborations supported by trust create a climate for new ideas to arise. It reminds us of the African proverb where speed might be equated to going alone, but the real distance is going to be achieved by working together: "If you want to go far go together, if you want to go fast – go alone" [1].

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Mary Butler (0000-0003-3365-8995) is Professor at Otago Polytechnic and teaches on both the undergraduate and postgraduate programmes at the School of Occupational Therapy. Underpinning her teaching and research she has a steady commitment to community collaborations and to ways of knowing informed by design and ethics.

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1   https://www.goodreads.com/book/show/50754369-the-power-of-professional-closeness

LITTLE WOODBATCH, MARKET GARDEN: AN INTERVIEW WITH DAPHNE PAGE, BISHOP'S CASTLE, UK

Interviewed by Keith Whiddon

Figure 1. Daphne Page. Source: Daphne Page

Keith: Tell me about your background Daphne?

Daphne: I came from Canada having done a master's in environmental science and what I focused on there was rooftop agriculture in the city of Toronto. I was offered a place at the Centre for Food Policy in London to do a PhD, focusing on food policies being developed in the UK with a focus on how civil society groups and the local councils are coming together and in different partnership models, looking at how these different partnership models come together to make local food policy that is about sustainable food production. So that is urban, rural and everything in between, and how these groups are working together to varying degrees of success to make these initiatives happen.

Keith: Can you tell me about your Market Garden?

Daphne: Little Woodbatch is a direct result of my research into sustainable food production and personal disenchantment with the conventional food system. It is something that I felt could be a way to not only live according to our values as a family and get closer to means of food production that we agree with, but also a way to do it right in practice. So integrate a number of different elements of sustainability, beyond simply

environmental, economic and social, but it can be about so many aspects of food, which are becoming a more a part of the dialogue of sustainability and the food system and it's an educational tool. It's a place where people can get together and we're going to be teaching different ways of sustainable food production, be it composting, be it how to plan your allotment, storing food. So we're going to be working on a course catalogue for the coming year in order to branch out into that educational aspect of the farm.

We are a one acre market garden in the town of Bishop's Castle and the only market garden. There are a couple of other ones that are nearby, but we are the only one who has specifically focused on serving our local community. We have made a deliberate choice not to branch out to the wider region simply because we want to try to support our community with short food supply chains, which is a big initiative that is discussed in sustainability and food systems literature. So not shipping things in from all over the place, reducing carbon and making sure were a part of our community first.

Keith: How long has it taken you to develop Little Woodbatch?

Daphne: We are in our third year, we started out with simply providing for a shop and a local restaurant or two, and that expanded into about four different restaurants, veggie boxes, farmers markets and a shop. And now with the pandemic, with restaurants and farmer's markets closed, we're now focused on expanding our veggie box offering to a wider range in the community and selling to shops as well and we're also giving to our local food bank every week.

Keith: Your philosophy is one of sustainable local food systems - why is this important to you?

Daphne: It's important to me because the conventional food system has been since the 1970s, based on the philosophy of more production, and lower prices, and it's ultimately based on exploitation of people, of resources and distancing us from the way that our food is produced, and we don't see the negative impacts. The costs are externalised in a way that we aren't aware of—just how heavily the earth and people producing our food are being impacted. We're addressing this by re-localising and producing our food at a human scale, a small-scale mixed farm with a focus on soil ecology and non-chemical production.

We have a way of taking care of the people who work here, of the environment that we're working in, and the community, so that that big production mentality is turned on its head. The concept is that small is beautiful, small is adaptable, where big production is not. With the pandemic, for example, we were able to turn on a dime, change what we were going to be growing, change how much we were going to be growing so we would be able to serve more people. Whereas you wouldn't get that with a 'big ag' conventional farm that is focused on planting one thing for the entire year.

So it's important to us in in so many ways—it's political, it's environmental, it's based on our values. It's based on our desire to connect people with their food and to reintegrate people's relationships with who produces their food, how their food is produced and to build an awareness. That is, again, turning the conventional food system on its head where that distance is now a closeness, a connection.

Keith: Your original thinking was about how we needed to prepare for the effects of a food shortage due to a no-deal Brexit by developing local food production. Did this prepare you for the current pandemic crisis and if so in what ways?

Daphne: I think as a result of my research my awareness of the sensitivity of our food supply chains and the fragility of those is probably heightened. My research centre began putting out policy briefings on the things that our government hasn't been acknowledging, or at least not publicly acknowledging, in terms of the fragility of our supply chains in the event of a no-deal Brexit, where supply chains are expected to be interrupted due to

the inability of lorries to get to the country, or line-ups at borders. So supply chain disruptions as well as pricing increases which would affect the population are expected and would have significant impacts on the population.

These things are going to be realities for the UK in whatever upcoming Brexit scenario, so in a sense, we've had a dry run with the pandemic, haven't we? We have seen supply chain disruption first-hand and I think it's made the population realise that we are still vulnerable. We do still live in a just-in-time food system. Just because we are a wealthy country, doesn't mean that we are impervious to these impacts. The UK has been like most wealthy countries—it has always had the view that someone else will feed us. That was the UK's pre-wartime view that got interrupted and it has been the case since and so this sort of privileged view that somebody else will come to our rescue and feed us, was shaken.

There's been, in my experience as a farmer, a great recognition of the importance of local food and locally accessible food. We've seen a huge surge in interest in our food production at the farm. But I think people have realised that there's been quite a lot that they've taken for granted in terms of the conventional food system. So, in a sense, I think people are going to be a lot more wary of no-deal Brexit and Brexit deals that don't have a strong inclination towards food and food security.

Reading a book from one of my advisors recently on issues with the UK food system [Tim Lang, Feeding Britain: Our Food Problems and How to Fix Them, 2020)] Tim Lang has made the point that after the 2007-2008 financial crisis, where there was inflation, there were food riots even in wealthy countries. People quickly forgot and went back to normal and normal ways of consumption. I'm hoping that this isn't that situation repeated. I think this pandemic will leave a big mark on our cultural memory.

Keith: What are you doing to help the local community through the pandemic crisis?

Daphne: Our initial plan this year was to focus on veggie boxes and do a small number. As we began to really hone our efficiency on the farm, then the pandemic came along, and we realised that our responsibility was to scale up production and to feed as many people as we could. In February, when we were starting our seeding, we had no idea how extensive the threat would be and how much the national food situation would be disrupted.

We just went completely overboard which was, I think the right move. We also increased our veggie box list. Currently we are at 30 weekly veggie boxes but we're going to be opening that

Figure 2. Food Box. Source: Daphne Page

up to another 10. In the coming week we will provide to a local, independent shop, 'Harvest Whole Foods' where we're supplying salads and vegetables every week. They have seen a surge in in demand as well as people want to shop from small local places rather than chain food supply stores.

The one thing that we had initially thought we would do is a 'sponsor a veggie box' initiative. So the idea behind that would be our veggie box customers would be able to purchase an additional box which we would be able to allocate to someone in need. The ethical dilemma there is how do we identify who is most in need? That brought

in a whole level that we weren't comfortable with and was resolved by our partnership with the Bishop's Castle Food Bank, which was created as a response to the pandemic. Previously, we just had the Clun Food Bank, but now, this has emerged as a local food bank running two days a week.

We realised that everybody is under pressure right now, in a number of ways, but financial is one of them, so asking more of our veggie box customers we felt was unfair. So we scrapped the sponsor a veggie box initiative and we're simply donating all of our surplus on a regular basis each week. We have volunteers who come and help with harvesting, and then we take it to the food bank on a Thursday. They keep in touch with us and let us know how many people they've had every week. It started out with one person, and it has gone up to about 50 currently in the past week, and more people receiving deliveries through the food bank, so they get packages, including our veggies.

What distinguishes our local food bank is that they will take fresh food, whereas most will not—for example neither the UK Trussell Trust nor the Clun Food Bank will take any fresh veg. So it's been a really wonderful partnership because we are producing an excess right now for the amount of veggie boxes that we're doing, but it allows us an outlet for it still to be used and it's donated fully by us at this point.

I think that adaptability and resilience is what keeps the community and also spirits afloat. I've been seeing what a few chefs are doing locally, creating nice things to deliver. We've effectively become a small food hub where we've partnered with a few local producers—a friend who does cut flowers, a friend who has a brewery and a friend who bakes and does bread whose restaurant is closed due to lockdown. We have added these elements to our veggie box offering and also increased our own flock of chickens so that we can provide eggs. These are little adaptations that people have made and we are able to be a hub for distribution for our veggie box customers. That is definitely one thing that I think we'll be keeping, because if we can be a one-stop shop for people's basic grocery needs, I think that is something advantageous to us and the people who are producers and makers around us in our community.

Keith: What are your future plans when the current pandemic crisis is over? Where do you see yourself and Little Woodbatch in 5 to 10 years' time?

Daphne: Future plans are to continue scaling up our veggie box offering as a part of that expanding to increase access or accessibility, because currently, it's largely retired middle class people who are fairly comfortable financially. We want to make sure that good healthy local food is accessible to all, so finding a way to connect with members of the community. For example, families whose children are on free school meals, elderly and vulnerable people—how we can reach them as well and make our veg affordable and accessible to people who struggle as a demographic to access and eat healthy veg on a regular basis. So one element is to increase accessibility, increase our production and efficiency.

We would like to continue to hire more local people so as we are able to do more veggie boxes, for example, which is going to be our main area of focus. We enjoy supplying our local restaurants, we enjoy supplying shops. The thing that we enjoy most is connecting with individuals and veggie boxes are really the way to have relationships through this. We have a really exceptional community of creative, caring people who are very supportive of what we're doing and it's been a pleasure to get to know them as individuals. We would like to eventually triple our veggie box offerings so that we're closer to 100 veggie boxes from one acre.

We would like to expand the amount of land we have, so that we would be able to create more socially accessible initiatives like a community forest garden. Also, a growing space for local schools, where they would be able to come. That sort of parallels our desire to make this an educational hub for food and growing. We've been in

discussion with the local college and the local school prior to the pandemic shutdown, about getting them here. For us to be able to share this, because my experience as an educator couples really with the practical element of what we're doing.

In the next five years, I see us having a course offering, I see us potentially having more land that we're developing into the broader sustainability initiative that we have, with more of a focus on agri-ecology, and rewilding sections of our land, the land around us, which is currently being used for conventional agriculture. I think my academic life is going to run parallel to that as well. We have a couple of agricultural universities around here. So publishing the experiences of Little Woodbatch and our links with the community is going to be an important part of what I would like to continue to do. In 10 years, hopefully we have a property maturing around us and ponds teeming with wildlife and soil teeming with microbes and a community that sees us as something that has brightened it and broadened it and informed it and created a space where it can come and thrive and participate. A community that sees us as having contributed to the resilience of the town through good times and bad.

Daphne Page holds a PhD in Food Policy from The Centre for Food Policy, City University of London. Her research is focused on the partnerships involved in creating community-level sustainable food policies in the UK. As a result of this research, she founded Little Woodbatch Market Garden in the town of Bishop's Castle in 2017.

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COLLABORATION: REFLECTIONS ON AN ACADEMIC CAREER

Kathie Lasater

Figure 1. Kathie Lasater at ANEC conference in Dunedin, New Zealand, 2019. Source: Conference organisers (with permission)

INTRODUCTION

One recently retired nurse educator reflects on the role of collaboration in her academic career, especially in developing an innovative curriculum and a programme of research. The paper traces the author's experiences over time and how an academic career can be cultivated through collaborations, some planned and some unplanned. The paper culminates in seven lessons learned about collaboration the author is passing along as a result of her experiences.

After nearly 50 years in nursing practice and academia, I am still a registered nurse but in voluntary roles. In the year following my retirement from employment, I have had the opportunity to look back – reflect – and appreciate the role that collaboration has had in the development of my professional academic career, both in curriculum development and research. Why is this important enough to write about and why, you may wonder, should you bother to read it? The short answer is that we can learn from and be mentored by others' experiences. During the academic year when we are busy providing quality education for our students, there is little time for much else, including mentorship and reflection. It is only since I retired and have given two presentations about the development of my research career that I have recognized the key role of collaboration.

Officially, to collaborate means, "to work jointly with others or together especially in an intellectual endeavor" (https://www.merriam-webster.com/dictionary/collaborate). As educators, we expend so much effort to help our students grasp the critical importance of teamwork in patient care. As academics, however, it is not uncommon to experience some isolation, and many of us would rather work alone than try to collaborate with other individuals to produce something of value. Working with others can be messy, time-consuming, and result in frustration, especially when collaborators have different work styles, expectations, or priorities. Additionally, individual schedules are often not conducive to collaboration, either locally or internationally. For the sake of this paper, I will briefly describe what I have learned from collaborating on a momentous curriculum development project, but the primary purpose will be to describe some ways in which my research programme and academic reputation have been furthered through collaboration.

COLLABORATING TO DEVELOP A SHARED CURRICULUM

During my doctoral studies in education while teaching nursing full time, an opportunity arose to be part of a curriculum development team that involved educators from an entire state in the United States (US), the one in which I was employed. About 11 programmes of nursing sent representatives to develop a shared curriculum. The primary idea behind the shared curriculum was that students who were geographically isolated from the five campuses of the public baccalaureate programme[1] could begin their studies in two-year, associate degree programmes[2], and finish their baccalaureate degrees with an extra year in the public university programme, making nursing education at that level more available and inclusive. The extra year could be done online or on a campus of the public university.

About 40 representatives from associate degree programmes and the five campuses of the public baccalaureate programme came from around the state for one and a half days per month for more than two years. We approached the project with a shared purpose and agreement about no dominance of a programme or type of programme over another. Most of us did not know each other before this experience so taking time for meeting and greeting as well as having fun throughout the process enhanced the relationships and allowed us to learn to trust each other and the group to create and implement the project. Leadership was eventually shared between an educator from the public university and one from an associate degree programme. Expert leadership and enough funding to support the effort were catalysts for collaboration (Tanner et al., 2008).

The collaboration among representatives from member programmes endures, more than 10 years later, through an annual statewide retreat and continued shared leadership (Gubrud-Howe et al., 2017). The retreat allows time for reviewing curricular and course outcomes, refining the courses and assessment strategies, as well as bringing new educators into the collaboration. Having a shared curriculum means that academic calendars, outcomes, and language among programmes are similar. How the shared outcomes are met is the purview of each programme. Personal lessons learned included how critical it was/is to have all stakeholders equally involved in the process and to clarify the principles and outcomes of a curriculum right from the beginning. These were valuable lessons at a crucial time in my development as an academic. I believed (and still do) that anything was possible with collaboration just as I was completing my doctoral degree in education!

COLLABORATING TO BUILD A PROGRAMME OF RESEARCH

Getting started

Of course, original research is most often a requirement of doctoral study. Generally, it is not an occasion for collaboration except, crucially, with one's committee. However, once complete, the dissemination process begins, along with potential for broader collaboration to build a programme of research. One of my dissertation research outcomes was an evidence-based rubric for assisting educators to put into words the developmental process for individual students to learn to make clinical judgments (Lasater, 2007; Tanner, 2006), particularly through the use of high fidelity simulation. My collaborators in the curriculum development project knew about the rubric and began to talk about it amongst themselves as well as at conferences or during consultations. At the time, I found it surprising that other educators had some of the same needs as I, but it set the stage for future collaborations. The

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1   Public baccalaureate programme: such a university in the US is owned and managed by an individual state and/or receives national funding whereas private universities are funded by their own endowments. Both public and private universities generally charge students tuition with private universities requiring higher rates.

2   Associate degree programme: a US academic programme usually undertaken for two to three years at the undergraduate level after secondary school. Associate nursing degree graduates can become registered nurses after successfully passing the nursing licensing examination in the US. Associate degree graduates can subsequently enroll in a baccalaureate programme to complete their degrees.

rubric was officially adopted to support one of the new shared curriculum's outcomes, and upon completion of my degree, I immediately submitted five abstracts, four of which were accepted for presentations at major diverse conferences in the following year. The end result was an audience primed and ready for the subsequent publication of the rubric and the evidence-based process that facilitated its creation. Within a year, three individuals who knew about the rubric asked for permission to validate the rubric in their doctoral studies (Adamson et al., 2012), inviting my collaboration in a variety of ways. For example, all asked permission to use the rubric for their studies, one asked me to train raters, the others asked only for periodic consultations.

Two years after the publication of the rubric, one researcher from my university was presenting at an international conference when we were approached by a group from a large university in a different geographic area of the US. They invited us to give a presentation on their campus about clinical judgment development, using high fidelity simulation, for their faculty. Based on our connection at that point, they applied for a national education grant to do a collaborative study to determine if high fidelity simulation differentiated levels of clinical judgment, using the rubric as a rating tool. This quasi-experimental study was implemented, collaborating with two other US programmes that I knew of, and an international programme with which the other university had an ongoing relationship (N=275). The resulting dissemination further enhanced and expanded knowledge about the development of clinical judgment (Johnson et al., 2012; Lasater et al., 2014). In addition, we were among the first groups to use and write about the digital tools required to collaborate in international research, such as following protocols and reporting data (Lasater et al., 2012). What I realised at this point was that my work would never become well-known without collaboration as a bridge to dissemination and the next research project(s). , I learned that such transitions are a critical time to highlight changes and measure effectiveness in teaching and learning. They are also busy times so finding collaborators can be challenging.

Looking for international impact

Several years after the rubric's publication, I made the decision to go forward for promotion to professor. However, the missing element was evidence of international impact so I sent an abstract to an international nursing education conference in Sydney, Australia. At the same time, my mentor was invited to present there at a regional simulation conference following the larger conference. Once my initial abstract had been accepted, I reached out to the organiser of the regional conference to offer to present, which seemed very forward at the time. She graciously invited me to present and at both conferences, networking was a key feature of which I took full advantage. Although I did not return home with a solid plan for research, I met a number of potential collaborators, many of whom later became co-investigators. I was also asked to write a manuscript about my presentation for a special journal edition (Lasater, 2011) and serve on an international journal advisory board that was looking for more US exposure. This position later evolved into an assistant editor role for another highly-ranked nursing education journal. The board and editor roles have brought me contact with international researchers, many of whom I have had opportunities to collaborate. Meanwhile, ideas for future studies were "stewing," but there was no product to show for it. During this time, I was approaching traditional retirement age and began to wonder if that was my next step.

Expanding beyond students

At about this time, the primary educator at the hospital associated with my university approached me and the colleague who most resonated with the clinical judgment rubric. The educator wanted to adapt the rubric for use as an assessment tool for newly hired nurses, required by a US hospital accreditation group. This accreditor expected that hospitals assess competence to practise in order to facilitate orientation and onboarding of nurses. The educator considered the rubric a tool that she, the hospital educators, and preceptors of new hires could use to tailor those onboarding strategies for newly hired nurses (Lasater et al., 2015; Nielsen et al., 2016). Through our

collaboration with the hospital, I had an important and surprising realisation: the rubric had relevance for graduate and practising nurses as well as students. This insight brought me into contact with collaborators beyond academe and extended my clinical judgment research and career.

Expanding across the US

From the time of the rubric's publication, I received numerous requests for permission to use it for research, curriculum development, and simulation assessment. Intuitively, I had put my copyright on the publication of the rubric so I maintained ownership of the rubric rather than the journal that published it. As a result, I received two or more requests per week for at least 10 years post-publication, in other words, hundreds of them. It was a tremendous advantage for me to serve as a clearinghouse because I could guide people to use the rubric or point them toward another tool that measured what they were interested in, and I also knew how the rubric was being used. These colleagues' creativity encouraged my own and also helped me to listen for future collaborators. Some became longer-term colleagues with whom I collaborated and with whom I am still in contact. As they used the rubric and reported their findings, the rubric and my name became more well-known, even outside the US.

Within the US, the National Council for State Boards of Nursing (n.d.) is "an independent, not-for-profit organization through which nursing regulatory bodies act and counsel together on matters of common interest and concern affecting public health, safety and welfare, including the development of nursing licensure examinations." They also develop the US licensure examination and recently recognized that it needs to better assess new graduates' clinical judgment. Several years ago, they contacted me to collaborate with them to bridge the gap between the science of measurement required to revise the examination and nurse educators as they prepare students for practice. The outcome was a publication (Dickison et al., 2019), and further national research involving four of my clinical judgment collaborators is underway.

International collaboration

As familiarity with the rubric grew, I began to hear from graduate students and faculty around the world, seeking permission to translate the rubric into other languages, using scholarly approaches involving back translations. Of the now 16 other languages either completed or in process, I have collaborated with eight of these groups to help them nuance meanings of phrases, read back translations, or generally consult. Some of the translations have involved face-to-face collaborations and some publications.

By far, the most international collaboration of my career occurred by leading a very large (N=532) study, involving nursing education students in Australia, New Zealand, and the US. Colleagues in Australia and New Zealand, whom I came to know around 2010, collaborated in the design and implementation of a study examining the impact of students' backgrounds on the development of their clinical judgment. Through a collaborative process, we were able to control for a variety of variables as well as explore the impact of them. Six researchers (two from each country) participated, including anonymously coding some data. Due to the complexity of the project, the time from design to publication was about five years with data collection approximately in the middle of that timeframe (Lasater et al., 2019; Kelly et al., 2020).

Through networking at an international conference in 2014, I met two critical collaborators and later, had the opportunity to apply for and be awarded a prestigious Fulbright Scholar Research Award. Our work focused on population health, a subject I taught for all of my academic career. We initially met over a very informal lunch, talking about our respective work and identifying areas we thought overlapped. This was followed by their visit to my university and an expanding collaboration with two nurse educators from another US university. Together, we wrote a persuasive paper which was published in a highly regarded nursing education journal (Atherton et al., 2017). When the prospect arose to apply for a Fulbright Scholar Research Award, my collaborators embraced the

opportunity and helped me develop a cogent and cutting-edge proposal in two weeks' time to meet the deadline. During four months of working together onsite in Scotland, we also collaborated with a master's intern from The Netherlands. From the Fulbright award, there have been multiple presentations and three publications to date (Lasater et al., 2019; Lasater et al., 2020; Scheffer et al., 2019) with a fourth paper in process.

LESSONS LEARNED ABOUT COLLABORATION

From my retrospective vantage, I realise a review of my career has highlighted some important lessons. Some part of my career trajectory was timing, but I can see that collaborations were as important if not more so. I offer the following advice for maximising collaboration to advance one's reputation and scholarly work:

1. Practise verbally summarising your scholarly interests so you can easily share them;
2. Attend and submit abstracts for presentation at scientific conferences that focus on or highlight your academic interests;
3. Keep an open mind; you really do not know what might lay ahead;
4. Introduce yourself to conference presenters or attendees who have similar academic interests;
5. Disseminate through publications as well as presentations;
6. Learn the art of collaboratively writing for publication (Clark, 2014);
7. Risk offering to present your work at conferences or universities where you have colleagues or may be visiting.

CONCLUSION

Reflection in retirement offered the opportunity to examine an academic career over a period of two decades. Reflection revealed that collaboration advanced an academic career, especially through curriculum development and research. It is not always easy to work with others; however, the rewards for patience, setting goals, and encouraging/mentoring others have been worth it for this author.

Postscript: During the upsurge of the 2020 pandemic, one of the unanticipated benefits of international collaboration over the previous decade was to share personal as well as professional connections with colleagues around the globe, to learn how they coped with the threat and challenges, and to wish them, their colleagues, and their loved ones the best for their health and safekeeping.

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WHAT ENABLES RETIRING ADULTS LIVING ON GREAT BARRIER ISLAND TO MANAGE LONG-TERM CHRONIC CONDITIONS?

Caitlyn Lyttle

Figure 1. 'View from home' – Motairehe, Great Barrier Island. Source: Rhoderick Lyttle.

INTRODUCTION

Aging is an inevitable part of life. Many individuals choose to spend the last period of their life in an environment that is relaxing and scenically attractive, features notable to Great Barrier Island (King & Connell, 1999). Great Barrier Island (Aotea 'White Cloud') is situated 100 kilometres in the outer part of Auckland, New Zealand in the Hauraki Gulf. Great Barrier is known for its sandy beaches, native bushes and birds, isolated from the many luxuries that people within the mainland of New Zealand have access to (Ross & Crawley, 2018). It is not surprising that one of the largest groups currently living on Great Barrier are the over 60 year olds, many having lived on the Island intermittently throughout their life (Howie & Robertson, 2017). This aging population may already have developed a chronic health condition or are more likely to during their period of retirement (Westerlund, et al., 2010,). This review of literature discusses the challenges faced by this population group and how they manage their health whilst living on an isolated, rural Island. Identified challenges to rural Island living include isolation, lifestyle maintenance, transportation, limited healthcare, lack of quality health care and financial burden (Goins, Williams, Carter, Spencer, & Soloveia, 2006). The influence of these challenges will be explored to understand how this 60 plus year old population manage their health, specifically long-term chronic conditions. Great Barrier Island has shown to host a great number of Māori compared to other areas within the country (Statistics New Zealand, 2013). Health providers in this rural setting should recognise the high population of Māori living on the Island and adapt their care to suit the needs of this group. An exploration of this population will be provided, outlining the health disparities faced by Māori and the duty of health providers in delivering culturally safe care.

Collaboration, among patients, health providers and within the multidisciplinary team is a key theme that enables the population of retiring adults to manage their health conditions on Great Barrier Island. Two recommendations will be provided to aid this population in their management of chronic conditions.

COLLABORATION

Geographically separated from urban populations, rural Island living can pose numerous challenges. Great Barrier Island is a rural and isolated part of New Zealand, a large number of the population here are reaching 65 years and above and retiring adult inhabitants (Statistics New Zealand, 2013). To achieve positive health outcomes in this group, the health consumer and professionals need to work together. Facilitating the health needs of retired adults managing long-term chronic conditions requires good communication, resources, and information to be provided by health professionals. A partnership between the health consumer and health professional encourages positive health outcomes to be obtained, improving the wellbeing of the individual receiving care (Reed, 2011). Effective communication within the multidisciplinary team promotes a patient-centred care approach and aims to cover a wide range of patient needs (Barr, Koppel, Reeves, Hammick, & Freeth, 2005). Positive interdisciplinary collaboration has shown to benefit the patient, organisation, and healthcare provider (Petri, 2010). Adopting these values of collaboration can be beneficial to patient health outcomes in both an urban and rural setting which, proves necessary to sustain living on an isolated rural Island. Without collaboration between health providers on Great Barrier Island and Auckland, medical emergencies would be detrimental for the patient. The recommendation to work alongside iwi promotes cultural awareness in health providers and encourages Māori, a high-risk group of developing chronic conditions, to ensure their health needs are met.

DISCUSSION

According to Goins, Williams, Carter, Spencer and Soloveia (2006), some barriers rural older adults face in their accessibility to health care include transportation difficulties, limited health care supply, lack of quality health care, social isolation and financial constraints. There is a necessity to protect and improve the health outcomes for rural New Zealanders as they face many barriers in their ability to access health care (Fraser, 2006). Living on an Island brings additional maintenance challenges, as there is a necessity to adopt a self-sustaining lifestyle due to limited resources (Choi, 2009). All these factors are likely to influence the retiring populations health status and their ability to manage their chronic conditions. Barriers will now be discussed.

Social isolation

According to Findholt (2013), often those managing chronic conditions in a rural setting feel both emotionally and physically isolated, expressing a desire to be surrounded by people going through a similar situation. Talking to someone who understands what you are going through can be therapeutic and allows the person to feel like they are not alone. The model of health, Te Whare Tapa Whā, encompasses four aspects of health that if fulfilled, promotes wellbeing (Ministry of Health, 2017). If one of the dimensions is missing or lacking, the individual may become unbalanced and unwell. Family health is an aspect of the model and is the capacity to belong, care and share among a wider social system (Ministry of Health, 2017). Based on this model, the retiring adults on Great Barrier with chronic conditions who feel socially isolated are likely to see a decrease in their health and wellbeing. It is important that there are services available to counter this issue. Whilst this may be the case for some, other rural communities explain that their isolated living positively enhances community support and cohesion (Findholt, 2013). A nurse living on the 'Barrier' (Great Barrier Island) claims there is a strong sense of community, acknowledging that this is from her experiences and may not apply to all individuals living on the Island (Ross & Crawley, 2018).

Economics

Financial burden is often prevalent in isolated rural areas (Fraser, 2006). Freight charges to bring supplies to the Island leads to an increase in the price of consumables, particularly food, petrol/diesel and cooking gas (Great Barrier Island Community Health Trust, 2020). There are no supermarkets, so often locals will eat home-grown or home-killed food (Mann & Skelton, 2017). On the Island, "950 people live without reticulated power or water" (Mann & Skelton, 2017, p. 1). Instead, power is self-generated; warmth in homes supplied by woodstoves/burners and water obtained by water tanks (Mann & Skelton, 2017). Expenses to maintain appropriate living conditions on an isolated Island comes with a cost as the increased fuel prices are the only available source to refill the generators which power homes. This financial burden may prove difficult for some individuals, creating stress in a time dedicated to relaxing after years of work. Financial stress can influence physical, mental, and emotional health (Choi, 2009). Poorly managed stress among this population on the island can lead to insufficiently managed chronic conditions, reducing wellbeing in numerous aspects of health. According to Health Point (2019), the enrolled patient fees to access a General Practitioner (GP) at Aotea Health are:

- Under 14 years: free
- 14 to 79 years: $19
- 80+ years: $13

According to CityMed Ltd (2020), an Auckland Health practice, the enrolled patient fees to see a GP are as follows:

- Under 12 years: $20
- 13 to 17 years: $40
- 18 to 64 years: $69
- 65+ years: $67

There is a significant difference in the cost to visit a doctor between the rural practice on Aotea to an urban practice in Auckland. The cheaper prices to see a GP on Great Barrier makes it more affordable for Island residents to access health care, enabling them to seek support and manage their chronic conditions. However, Great Barrier only has three GPs at the practice, suggesting it would be difficult to be seen promptly due to the ratio of doctors to patients on the Island. Auckland has a vast number of GP clinics available to the city residents, meaning they are likely to be seen faster than those at Great Barrier. This could have negative outcomes for those living on Great Barrier as their reduced ability to receive prompt care could lead to an increase in the severity of symptoms they are experiencing.

Lifestyle maintenance

The increased cost of food on the Island encourages many to adopt self-sustaining eating choices of gardening and hunting. The manual labour required to maintain this lifestyle can have a positive impact on the management of chronic conditions. Physical exercise is recommended for reducing the severity of long-term conditions such as diabetes and heart disease (Nicklett & Kadell, 2013). Eating fruit and vegetables has positive health outcomes in the management of chronic conditions, showing be a protective factor against hypertension, coronary heart disease and atherosclerosis in older adults (Nicklett & Kadell, 2013).

For many of these people, the housing is not adequate and requires manual labour to meet suitable living conditions. A lack of electricity calls for an individual responsibility to light fires or power generators to keep warm. Septic tanks and water tanks are also commonly used on the Island (Howie & Robertson, 2017). Some older adults may find it difficult to maintain these essential living requirements and should take into consideration their physical ability to sustain a living on Great Barrier Island.

Transport

The sparsely populated island and the limited number of health care services impacts one's ability to receive health services. Many are required to travel great distances to visit their GP or nurse. Travel around the Island can prove difficult for households without a vehicle as there is no public transport (Great Barrier Island Community Health Trust, 2020). Fuel costs can be quite expensive in comparison to urban populations, which may deter people from having their own personal source of transport. Research has shown links between resource accessibility and health status, indicating that those with inhibited access to be disadvantaged in numerous aspects of health (Fraser, 2006).

Additional transportation issues that prevail on the island include a lack of traffic lights and streetlights, where there is a pure reliance on natural lighting to illuminate the roads (Mann & Skelton, 2017). Also, transport from the island to the mainland is weather dependent and expensive, with the two options of ferry or flying (Great Barrier Island Community Health Trust, 2020).

AOTEA HEALTH CARE

The Great Barrier Island Community Trust (2020) is an organisation that purchases necessary medical supplies and communication sources. They work in conjunction with Aotea Health Ltd, a primary health care provider which offer health care services to those on the island. The Aotea Health Ltd team consist of midwives, rural nurses, general practitioners, administrators and community workers (Health Point, 2019). The rural nurses' role encompasses many aspects of health, including mental health, district nursing, public health, Plunket and practice nursing (Health Point, 2019). Services are available to people throughout the lifespan, from antenatal care to palliative care (Health Point, 2019).

A rural nurse who has worked and lived on Great Barrier Island for over 30 years says she had cared for four to five generations of one family/whānau (Ross & Crawley, 2018). This enabled her to develop meaningful therapeutic relationships with clients and their families, the remote island means that "you already know them and they already know you" (Ross & Crawley, 2018, p. 31). Nursing in a rural setting can pose boundary challenges between the nurse and client as there are personal and professional aspects of the relationship. Nurses who have a personal and professional relationship with the client are at risk of being biased in their delivery of care. Therefore, there is a need for nurses to establish relationship boundaries to ensure the care delivered is safe and appropriate (Howie, 2008).

Limited health care

The Aotea Health Ltd team on Great Barrier aims to cater to the needs of the residents on the Island by offering a full range of primary health services. They also offer nursing emergency services and an after-hours on-call doctor (Health Point, 2019). However, they lack resources for an acute emergency and require assistance from services on the mainland. In the case of a medical emergency, the team at Aotea Health work collectively with Auckland emergency services to retrieve the patient, often by helicopter and take them to an Auckland hospital (Health Point, 2019). Older adults with chronic conditions are a high-risk group to experience a medical emergency which requires hospitalisation (Chang, et al., 2019). Great Barrier Island has only so many resources available for residents undergoing a medical emergency and the delay in care could have detrimental consequences. Working with interdisciplinary teams enables the safety of island residents. Without collaboration between health professionals on Great Barrier and Auckland, the safety of the Island residents is in jeopardy.

Cultural considerations

There is a high population of aging Māori on Great Barrier Island. The median age of Māori on the Barrier is 37 years old compared to the median of 23.9 for all Māori in New Zealand (Statistics New Zealand, 2013). The Māori population is overrepresented in statistics of numerous chronic conditions, including cardiovascular diseases and diabetes, conditions that are often preventable through lifestyle changes (Gu, Warren, Kennelly, Neuwelt, & Harwood, 2014). Māori are shown to be disadvantaged in their health literacy knowledge compared to non-Māori (Lambert, et al., 2014). As a health professional, it is essential to gain an understanding of your patients' health literacy to ensure they are indeed following their recommended care plan. Accommodating to the cultural needs of Māori clients and adhering to the Treaty of Waitangi allows for appropriate and safe care. The second recommendation is aimed to incorporate the cultural needs of Māori living on Great Barrier Island. Providing this group with education on the chronic health risks that they are susceptible to can be used as a prevention and management tool, with hopes of achieving good health and wellbeing.

RECOMMENDATIONS

A mobile clinic to provide health to islanders, including aging adults living with long-term chronic conditions

One recommendation is for a mobile health clinic to be present on Great Barrier Island. This would improve patient access to health services and encourage people to act on their health. It would be beneficial if there were mobile clinic runs specifically catered to aging adults with chronic conditions. This could serve to educate patients, prevent the severity of disease, and manage current symptoms. The health professional supplying individuals with coping strategies will provide individualised care and advise on the management of their condition. Having individuals from different aspects of the multidisciplinary team allows different community needs to be met, ensuring the health and wellbeing of clients.

A mobile health clinic in the USA proved to be an effective tool for chronic disease management. According to Yu, Hill, Ricks, Bennet and Oriol (2017), patients who visited the mobile clinic over a two-year period had a significant average reduction of 10.7 mmHg systolic and 6.2mmHg diastolic blood pressure among their patients with hypertension. Managing hypertension is essential for many chronic conditions, a significant decrease such as this reduces the relative risk of both myocardial infarction and stroke (Yu, Hill, Ricks, Bennet, & Oriol, 2017). Mobile clinics are said to reduce barriers to health services, including "distance, social isolation, lack of time and cultural issues" (Bidwell, 2001, p. 26). Great Barrier has a sparse population, having a mobile clinic would aim to reduce some of these inequalities that exist among rural population access to health.

Educate the local marae on the management of long-term chronic conditions

A great number of the population on Great Barrier Island are Māori, many are associated with local marae on the island (Statistics New Zealand, 2013). Māori are statistically supported to be shown to have poorer health outcomes than non-Māori due to a high representation in the following areas which influence health: poorer social and economic status, high levels of behavioural risk factors (e.g. smoking, drinking, drug abuse) and poorer access to some health services (Ministry of Health, 2001). These poorer health outcomes make Māori a high-risk group of developing long-term chronic conditions. Intervention tools on the marae aim to reduce the prevalent health inequity, promoting health and educating individuals on how to prevent and manage chronic conditions. The marae is a space that Māori often gather, practise cultural beliefs and share knowledge among one another (Tapsell, 2002). Educating individuals in a place as such encourages a discussion to be had on ways that Māori of all ages can achieve positive health.

A health promotion and diabetes prevention programme was conducted on an urban marae (Simmons & Voyle, 2003). The research concluded that the majority knew little about diabetes, ate high intakes of fatty foods and had low levels of physical activity (Simmons & Voyle, 2003). This programme was shown to increase the potential for the adoption and maintenance of healthy lifestyle behaviours; the marae had taken action to run their own health programme to educate their people (Simmons & Voyle, 2003). Trialling a health promotion and chronic disease prevention programme on Great Barrier Island would be beneficial in numerous ways. It could encourage a discussion around Māori health and educates this high-risk group on what actions can be taken to prevent the development of chronic diseases.

CONCLUSION

Retiring adults who live on Great Barrier Island face challenges that differ from those living on the mainland of New Zealand, the rural environment creating barriers in numerous areas influencing health. Managing a chronic condition with fewer health professionals available can lead to the severity of symptoms and overall poorer health. Additionally, there are transportation issues which inhibit these people to access services. Isolation and financial burden can negatively influence the wellbeing of islanders, influencing other aspects of overall health. The lifestyle upkeep of living 'island style' may impose on the relaxation those often seek during a period of retirement. Health providers are tasked to consider the rural situation of the population living on Great Barrier and deliver care that is accessible and accommodates to their needs. Achieving this requires collaboration between all individuals involved in the care plan of patients. A mobile clinic is a means to try and reduce the health inequalities faced by those living on an isolated rural Island. An increase in access to services would ideally lead to better health outcomes in the population, including those managing chronic conditions. Additionally, if education on disease management was provided on the marae could improve the health of Māori, a high-risk group.

Caitlyn Lyttle is a third-year nursing student at Otago Polytechnic. She has an interest in both Māori and rural health, areas that specify to the population on Great Barrier Island. As a Māori individual whose family marae is located on the island, she was passionate to explore this topic.

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DISRUPTED LEARNING DURING THE COVID-19 PANDEMIC: COLLABORATING TOGETHER STRENGTHENS OUR EFFORTS

Suzie Bartlett, Cynthia Mullens, Teresa Bradfield and Jean Ross

INTRODUCTION

In this paper three doctoral candidates at New Zealand's Otago Polytechnic and their academic mentor reflect on the impact of the COVID -19 pandemic on their approach to contextualising, designing and accomplishing their research goals.

Associate Professor Jean Ross is the academic mentor for the three candidates, and all three began their Doctor of Professional Practice (DProfPrac) journeys before the pandemic. Anticipating the disruptive effects of New Zealand's pandemic response (New Zealand Government, 2020), Ross invited each candidate to engage in a conversation about their research plans and progress, and to collaboratively consider how the effects of the pandemic would challenge their DProfPrac journeys.

The three candidates are at different stages within the doctoral programme. A learner involved with the very beginning of this journey (Bradfield) will investigate disruption as a concept from a personal and academic perspective, while completing a review of learning. A reflection in action from a learner collecting data (Mullens) will follow, and a learner who is currently analysing and consolidating data (Bartlett) will conclude the paper. The three learners will be identified below according to the phase of their learning journey as Phase One, Phase Two and Phase Three of the DProfPrac set within the context of, COVID-19 while demonstrating their collaborative actions and encounters.

CONTEXT

Otago Polytechnic's Doctor of Professional Practice

The DProfPrac is a work-based qualification which enables candidates to collaborate with their academic mentors to reflect on their previous experiences and learnings which assists them to develop their individual learning agreement before undertaking research that is meaningful and relevant to their professional practice. Candidates create new knowledge for and about New Zealand's workplaces through applied practice and research projects, facilitating the development of their personal and professional practice (Doctor of Professional Practice, 2020). Candidates enrolled in the programme have chosen to research and reflect on areas that are directly related to their everyday practice, and the knowledge gained is personal and meaningful in a way that advances not only their professional but also their the personal self. A reflective process (Phase One) takes concrete occurrences into the realm of values, attitudes, and the ways in which the world is viewed and how it works (Mezirow, 2000).

Phase Two – the development of a learning agreement – includes an exploration of the candidates' ethnocentric thinking and the lens through which personal and professional narrative have evolved. Phase Three is about the candidates' research processes, and their outcomes and outputs. All three phases relate to collaborating with their academic mentors and DProfPrac candidates.

However, during the COVID-19 pandemic and Alert Level 4 and 3 lockdown in New Zealand candidates have needed to reconsider their approach to their research with their academic mentor which has changed direction for two of the candidates. A brief discussion of COVID-19 is presented below followed by an explanation of collaboration to situate these two concepts with the New Zealand COVID-19 context.

COVID-19

COVID-19 is caused by a highly infectious coronavirus, first documented in Wuhan, China, in December 2019 (World Health Organisation, 2020), and declared the cause of a global pandemic on 12th of March 2020 (New Zealand Government, 2020). The virus is spread through droplets of saliva or nose discharge. There is no vaccination or cure for COVID-19 at the time of writing. The most effective control measures are quarantine (at national borders where possible), social distancing, and face covering (mask wearing). New Zealand created a national alert level system to manage COVID-19 (ibid), set first at Level 2, which then rose to Level 3 for 48 hours, before a nationwide Level 4 lockdown on March 26th 2020. This level's strict guidelines only allowed individuals to exit their homes for essential services, limited exercise, or if they met essential worker criteria.

The Level 4 lockdown has seen a rapid decrease in the number of cases of COVID-19, and the country moved to Level 3 on April 27th. At the time of writing the country is at Alert Level 1, which allows normal day-to-day activities. Our borders are our defence, with restricted access to those entering New Zealand. COVID-19 has changed the way that we interact with others, go about our lives, our work, study and many other parts of our usual daily living. These changes are causing stress and uncertainty, and a significant impact on the mental wellbeing of people within New Zealand (Ministry of Health, 2020).

COLLABORATION

Groups of individuals working together – collaborating – can extend sharing and reflection, and create new understandings and visions (Gilbert, 2016). Collaborative success depends on six factors: first, trustful teamwork, goal setting and achievements, planned and executed together; second, collective responsibility for vision and goals; third, a clear purpose that captures the vison and goals; fourth, clarity about timelines and deliverables; fifth, open and frequent communication; and sixth, collective inquiry with common goals and meaningful debate. Collaborative working relationships create challenges – individually and collectively – but also enhance debate and broaden horizons. We have all encountered working collaboratively together with our academic mentor and together as DPP candidates, hence this collaborative publication.

PHASE ONE – TERESA BRADFIELD'S REFLECTION

Phase one of the DProfPrac focusses on reviewing prior learning; identifying the experiences and skills that cumulatively offer the pre-requisite requirements for entry. It is a challenging process, involving personal reflection on practice, developing a deep understanding of my research paradigm.

Offering a perspective on disruption initially seemed a straightforward request. I am at the starting blocks, and my first thoughts were that it should be straightforward. However, as my academic mentor once said "we see the world as we want to, not as it is." Remembering this, I took longer to work on documenting my perspective than

I had imagined. A realisation is that we are the sum of all of our parts – one cannot write about perspective, or disruption, without considering the meaning of each word and the context in which it is applied.

I thought about the definition of disruption, and settled on the Cambridge Dictionary definition: *the action of preventing something, especially a system, process, or event, from continuing as usual or as expected*; and the Cambridge definition of perspective, *a particular way of considering something* (Cambridge Dictionary, 2020)

As a learner, my research paradigm aligns with the qualitative, interpretivist paradigm. Patton (2015) says that qualitative inquiry is about illuminating meanings and how humans engage in meaning making, which in the context of a global pandemic invites me to personally reflect on how I apply my experience as a health professional, how I apply my knowledge of clinical governance and leadership, and what this means for my current doctoral pathway focussed on engagement in clinical governance.

I have thought about Covid-19 with a perspective that enabled me to begin to make sense of what I see emerging around me. As a learner, understanding the immediate pivots required to continue to successfully study, the virtual space, and the lack of social contact, all make sense in this context. It is not a hardship to transition, and personal disruption in this sense is limited, mainly because of time and place in my study programme. Had I been in the data collection phase, I would have viewed the disruption differently – not quite a showstopper, but enough to need a re-plan. Why, you might ask, would that matter? Because my focus is on engagement, connection, relationships and the human condition, my experience of the whole. I would miss the subtlety, the small things that help me make sense of what I see and hear. From a learner perspective disruption is a future possibility in my study design, which one could argue, at this moment, is purely academic.

My next perspective – a systems view, acquired as a health professional – affords me an insider perspective to COVID-19 illuminating the disruption it has caused as it envelopes the globe. Insider research places the researcher within an area of familiar practice. It has benefits – there is common understanding of process and language – and it has disadvantages; it may mean some things are taken for granted, that uncomfortable subjects may be avoided (Costly, 2010).

I have previously researched clinical governance, leadership and organisational culture (Bradfield, 2019), completed pre COVID-19. An illuminating piece of research, it highlighted the importance of relationships based on trust and respect and engagement between governance and clinicians. As I reflect on those findings, I see COVID-19 as the opportunity for clinicians and governors to work together differently, and indeed, we are witnessing significant changes in clinical governance relationships overseas as countries struggle with the clinical demands and ethical dilemmas presented by the overwhelming impact of COVID-19.

There are opportunities for government, governance, health practitioners and academics to become united during the disruption caused by COVID-19. Perhaps this experience will redefine relationships and form fresh perspectives, enabling us to see the world through a different lens, and create greater resilience in our collective community through collaboration.

Finally, there is the personal response to the pandemic threat, and the disruption to our livelihood and wellbeing. Abraham Maslow's (1943) hierarchy of needs came to mind as we entered lockdown. Survival, safety, physiological needs and Maslow's pyramid emerged to me from my past as a student nurse. I guess, from my perspective it was the human component of disruption that brought this to mind. It was perhaps the most illuminating moment in preparation for a new way of living during lockdown, because it reminded me that we plan for a future, but in reality we only have the past and the now. Making sense of the now, being more aware of the now, helps put our life in perspective, but perhaps that is a learning from COVID-19, in our busyness of day to day activities we forget to consider why the now matters.

COVID-19 is likely to be with us for a very long time; disruption will become a common theme in our lives. Our perspectives will change as we work together throughout the pandemic evolution, and for some of learners that will involve changes of plans, a slowing down, a review of direction of travel. Our relationship with co-learners, and others, will change, and perhaps be strengthened by the adverse situation we all face as we develop new resiliencies and collaborations. We will each attempt to give meaning to what is happening, and in connecting with others, discover new connections.

I conclude with a quote from Patton (2005 p.54), "People in the field may appear more distant than they are. Or closer. Or both at the same time. In every case these appearances are not what's important. Get closer. And closer. To get beyond appearances."

PHASE TWO – CYNTHIA MULLEN'S REFLECTION IN ACTION

As defined by Schön, reflection in action is the use of the reflective process through experience – learning that captures knowledge and meaning (Schön, 1983).

Currently in the middle of phase two of my DProfPrac journey, with my research approved by Capable NZ's ethics committee (Doctor of Professional Practice, 2020), data collection has become my dominant focus.

Upon reflection, *disrupted learning* seems redundant in that all learning disrupts some aspect of how we think, view and act within the world around us. With that great gem of wisdom, undertaking the DProfPrac has continued to disrupt multiple aspects of learning for me. I am learning that choosing a project that is entwined with self and work has become a very refining space to occupy. Refining removes impurities from impure metals through the smelting process, therefore increasing value or worth of the metal. Metaphorically speaking the DProfPrac has acted as this refining heat, requiring me to view aspects of my chosen project from angles I have not always wanted to see. Rogoff (1995) refers to this as the concept of *participatory appropriation*, where individuals change through their involvement in an activity, and through their participation are prepared to handle future situations – a process of *becoming*.

The year 2020 will be the *year of becoming* for the global population, refining the way we see ourselves, our humanity, and the world around us. In January 2020, as I completed my first course for the DProfPrac, the exciting second stage of the journey was just beginning. The cataclysmic shift of focus was so sudden, my ethics application was rendered out of date within a 48-hour time frame. Two files with the names *pre-pandemic*, and *post-pandemic ethics application* now sit within my hard drive. I have been evolving the concept of this project since 2017, building relationships with communities and learners to investigate ways of working to develop a slow and compassionate pedagogy to inspire learners to step outside what they know and focus on aspects of global health. Globalisation has rapidly changed every aspect of how we think and view health. As a registered nurse, I have worked, and personally experienced the learning that occurs when working in community health in resource-poor environments. As an educator this became the focal point for inspiring learners to seek out opportunities that would shift their perspective and provide them with an opportunity to engage in a real life context of community health with a global focus.

An important component of my practice as a registered nurse as well as an educator has been the power of community. Delanty (2003) defines community as a powerful idea of belonging in every age, with a reality that consists of persuasive power as the most social aspect of society. This concept of community captures the multiple aspects of teaching and learning, with the realities of practice as a nurse in a global context. My pre-pandemic plan included traveling to a remote community in Vanuatu to complete a Primary Health Care Clinical Placement, working and living in a community to collaborate with community stakeholders and health care workers to find local solutions to health needs. As you can imagine, the logistics of occupational health and safety, travel, and fundraising are an essential component of the viability of any such collaboration and this planning was

well underway through continued communication with community stakeholders and those learners who were to be involved with this project. Planning, organising, and developing this project had been underway since 2017.

A pivotal point in time was deciding to switch this project into a virtual space. As more information became available and the response of governments struggling to find a systematic approach to management of COVID-19 emerged, the core team involved with planning and facilitating this fieldwork met to discuss our options. It became evident through our discussion that this work could not go forward as originally planned, and community stakeholders and learners were informed of the decision. Many people have worked in collaboration with me during this time to help me shift my focus from what could have been to what can be.

There is a sense of strength in choosing one's own path, and I have learned that leadership is about the proactive approach one takes. Through guidance and knowledge, we strive to meet needs as they change, having the courage to continue to walk in faith that your work will have an impact. Trusting that the process may look different to what you expected, but in the end, isn't that the disruptive process of learning?

PHASE THREE – SUZIE BARTLETT'S REFLECTION ON ACTION

Where reflection-in-action refers to thinking about what you are doing whilst you are doing it, *reflection-on-action* refers to the retrospective contemplation of practice undertaken in order to uncover the knowledge used in practical situations, by analysing and interpreting the information recalled (Fitzgerald, 1994) – looking back after the event has occurred, through a cognitive post-mortem. It involves the turning of information into knowledge. This kind of reflection not only enhance knowledge, but also challenges one's theories and concepts (Bolton, 2004).

My data Phase Three collection and thematic analysis are complete and the research process is underway. The excitement of discovering new knowledge that is meaningful and can create change is tangible. Understanding of self and community or *perspective* is well developed in readiness to defend my research. Writing of the thesis is underway. What I have come to understand throughout the DProfPrac journey is disruption, perspective, reflection in action and reflection on action are present and enduring whether we want them to be or not. This is part of the process, the journey, and the learning. From disruption, resilience develops. From resilience strength develops.

Innovators are told: "Think outside the box." (Patton, 2002) Qualitative scholars tell their students (enlarging on Bradfield's quote above): "Study the box. Observe it. Inside. Outside. From inside to outside, and outside to inside. Where is it? How did it get there? What's around it? Who says it's a box? What do they mean? Why does it matter? Or does it? What is not 'box'? Ask the box questions. Question others about the box. What's the perspective from the inside? From outside? Study diagrams of the box. Find documents related to the box. What does thinking have to do with the box anyway? Understand this box. Study another box. And another. Understand box. Understand. Then you can think inside and outside the box. Perhaps for a while. Until it changes. Until you change. Until the box becomes inside – again. Then start over. Study the box" (p.2).

The COVID-19 pandemic has led to much thinking inside and outside of the box in my professional practice as a nurse educator and as a doctoral learner. The rapidity of the pandemic taking the country to lockdown Alert Level 4 was extraordinary. Undergraduate learners in the Bachelor of Nursing programme went from being immersed in clinical practicum, to being withdrawn from their clinical placements sometimes with minutes notice. Students were in a state of flux with unfinished hours, unfinished papers, uncertainty and heightened levels of anxiety. As a practitioner this meant taking hours and hours of theory normally delivered face to face and converting this to online learning with little notice.

Being an innovator and observing the box from inside and out became our new modus operandi. From being in isolation during the lockdown period, came new comradeship among practitioners as we worked toward a

common goal to facilitate virtual student learning. This disruption caused much reflection on action. Collection of feedback from learners; thinking of the *what next* in case we return to lockdown in the future; asking *how can we do this more effectively?*

As a learner in the DProfPrac, I am currently developing a national framework for tertiary learner mental health and wellbeing. The increased demand for psychological support by students is at times becoming overwhelming for staff, contributing in turn to their own psychological distress. The acuity and complexity of complaints presenting to student support services at Otago Polytechnic and also at an institutional level internationally, is heightened (Storrie, Ahern & Tuckett, 2010).

Resilience was one of the three main themes that emerged from my data analysis. Not just taking into account resilience of undergraduate learners and staff, but resilience of courses. Building resilient courses that meet learning outcomes and deliver the required content in an engaging way through online platforms has been new territory. Reflection on action, seeing the box from all angles, has enabled this altered form of teaching and learning to be robust, resilient and of high quality. Teachers have become learners and learners have become teachers. Development of new skills in online delivery have opened new possibilities for future delivery of online courses. Resilience of staff and learners has been tested, the mental health and wellbeing of our people has been challenged.

Pastoral care has been delivered in virtual spaces, with learners asking for this to continue beyond COVID-19. The mental health and wellbeing in an already vulnerable population of tertiary learners has been tested through this pandemic with the restrictions put on personal, social, and learning activity. Staying connected has been key. Now more than ever I am aware that my research is valid and meaningful, as policy and strategy in relation to mental health and wellbeing of learners' needs moves to the forefront of our organisation and nationally throughout our educational sector.

CONCLUSION

It is important to note four main themes that have emerged throughout this contribution to this article: disruption, reflection, change, and collaboration. Doctoral learners have demonstrated their ability to change course when threat has turned to opportunity. New directions have arisen in research projects taking the doctoral learner in an entirely new direction due to COVID-19.

Reflection in the process of action is evident, and learners identify thinking in a disrupted landscape. Thinking in this space has altered the lens through which learners' view themselves, their projects, and their communities nationally and internationally. Disruption is a theme throughout each learners' experience, making new meaning through inquiry and reflective practice.

These four themes all develop resilience which has emerged as a fifth theme: academic resilience – a learner's capacity to overcome acute or chronic adversities that are seen as major assaults on educational processes (Martin & Marsh, 2015). Recently, academic resilience has been noted as a factor in ways of coping for tertiary students. Resilience is therefore a key concept for tertiary learners. It enables them to persevere when disruption and change occurs outside their control, to continue an altered path – going left instead of straight ahead if you will.

Resilience helps us make new meaning from complexity and develops us as human beings. The doctoral journey is responsible for not only the creation of new knowledge in our unique practice areas but for development of self and community. We will emerge more resilient, more critical in our thinking, shaped by our own individual journeys to understand our place in the world, and our passion. New connections and collaborative relationships will be forged, and new knowledge will be shared. Collaborating together with the guidance of our academic mentor has strengthened our journey, with a vision which supports all our efforts.

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THE EXPERIENCES OF COMMENCING AN IN SITU SIMULATION EDUCATION PROGRAMME IN AN ACUTE AND CRITICAL INPATIENT HOSPITAL ENVIRONMENT

Joanne Robertson-Smith and John Edmond

INTRODUCTION

Simulation-based experiences (SBE) are being utilised increasingly within healthcare environments worldwide (Motolo, Devine, Chung, Sullivan, & Issenberg, 2013). SBE may improve a learner's technical and non technical skills (Abe, Kawahara, Yamashina, & Tsuboi., 2013) which includes their knowledge, confidence, teamwork, communication, and the understanding of healthcare professionals' roles. Improved team work, interprofessional collaboration, communication, and co-ordination that can lead to an increase in the quality of patient care and ultimately improved patient outcomes (Weller & Civil, 2017; Decker, et. al., 2015). In situ SBE refers to an educational opportunity which occurs within a patient care setting where healthcare professionals would normally provide their services (INACSL Standards Committee, 2016a), allowing teams to test their own effectiveness as well as hospital processes (Spur, Gatward, Joshi, & Carly, 2016).

This paper will reflect on the experiences of the first two years of an in situ SBE programme which commenced in October 2017. The in situ SBE described predominantly occurred within a coronary care unit, on cardio-thoracic, respiratory, cardiology and renal wards as well as a cardiac catheter lab. The authors also extended their in situ SBE into other specialist areas within the tertiary hospital they work in. The content will reflect on the impact upon clinical practice, latent safety risk identification, the challenges experienced and interprofessional as well as interdepartmental SBE.

METHOD

About the environment

Dunedin Public Hospital (DPH) is situated in the lower South Island of New Zealand. The hospital is a 388-bed tertiary facility employing over 3,000 staff and servicing the Otago and Southland population of around 300,000. The cardiology department is the regional centre for myocardial infarction management, as well as being a cardiac surgical centre.

The in situ SBE programme

The Otago Simulation Interest Group (OSIG) was formed in 2017 to provide an organisation wide SBE network, to assist in establishing and maintaining SBE within differing clinical areas. OSIG established standards and encouraged the sharing of resources and ideas between those undertaking SBE within the Otago and Southland areas. With the advice and encouragement of OSIG we commenced an in situ SBE programme in the cardiology/respiratory/renal wards.

The framework of SBE usually consists of; pre-planned, measurable objectives; a comprehensive pre-brief; the simulation scenario; and a reflective and structured debrief to conclude the learning experience (INACSL Standard Committee, 2016b). Using this structure, the in situ SBE sessions were devised and run.

Within our clinical environments, over 30 in situ SBEs were undertaken during the first two years (Table 1). These in situ SBE usually took place over the 30 minute period of handover time between the morning and afternoon shifts for nuses. The timing was to allow for maximum participant attendance and allowing an increased chance to undertake SBE repeatedly. The scenarios utilised included; caridiac arrest (ventricular fibrillation (VF), ventricular tachycardia (VT) and pulseless electrical activity; anaphylaxis; hypoglycaemia; airway management; opiod induced ventilatory impairment (OIVI); and a deteriorating patient scenario. The majority of in situ SBE were VF or VT cardiac arrest scenarios. The educational objectives of the cardiac arrest SBE were to provide exposure to the New Zealand Resuscitation Councils (NZRC) algorithm for Advanced Cardiac Life Support (ACLS) (New Zealand Resuscitation Council, 2016), resuscitation drugs, and resuscitation equipment. Staff were asked to simulate how they would respond to an inpatient who went into a cardiac arrest. Equipment included a low fidelity mannequin, real drugs, real documentation, and a device which allowed an altered heart rhythm to be displayed on the M4735A HeartStart XL Defibrillator/Monitor (Phillips Healthcare, Andover, MA) or Phillips HeartStart FR2 Defibrillator (Phillips Healthcare, Eindhoven, The Netherlands).

Date	Type of SBE and location	Attendants
20/10/17	VF arrest	Nursing (10) Student Nurses (2); Facilitator (1)
30/10/17	VF arrest	Nursing (9) Student Nurses (2) Facilitators (3)
07/12/17	VF arrest	Nursing (8) Facilitators (3)
14/12/17	VF arrest	Nursing (8) Facilitators (3)
01/02/18	VF arrest	Nursing (5) Medical (3) Facilitators (2)
15/02/18	*VF arrest	Nursing (6) Facilitator (1)
15/02/18	VF arrest	Cancelled due to patient acuity
15/03/18	VF arrest	Nursing (7) Facilitators (2) – moved to 7th floor seminar room due to patent acuity. (Medical Ward Clinical Nurse Educator present to learn)
29/03/18	Hypoglycaemia	Cancelled due to staff sickness
05/04/18	Hypoglycaemia	Nursing (13) Facilitators (3)
23/04/18	VF arrest	One SBE after the other with senior nurses from throughout the hospital
30/04/18	VF arrest	Cancelled re: acuity
09/05/18	VF arrest	Medical (6) Nursing (18) Student Nurse (1) Faculty (2)
15/05/18	VF arrest	One SBE after the other with senior nurses from throughout the hospital.
23/05/18	VF arrest	Nursing (16) (7 from the medical ward). Facilitators (3)
31/05/18	VF arrest	Cancelled due to staff sickness
18/06/18	* VF arrest – Surgical floor	Nursing (13) Student nurse (1) Facilitators (2)
20/06/18	VF arrest	Medical (5) Nursing (17) Facilitators (3)
30/10/18	VF arrest	Medical (9) Nursing (14) Allied (2) Student Nurses (4) Student Allied (1)

12/11/18	*Anaphyaxis Radiology Department	Medical (4) Nursing (3) Medical Imaging Technologist (MIT) (7) Faculty (3)
16/01/19	*Anaphylaxis – Oncology Day Unit	Nursing (12 – 4 participants 8 observers) – Faculty (2)
29/01/19	PEA Arrest	Nurses (7)
23/02/19	Anaphylaxis	Nursing (9) Medical (3)
28/02/19	Anaphylaxis	Nurses (8)
26/03/19	VF arrest	Medical (2) Nursing (8) Student Nurse (1)
02/04/19	VT arrest (Cath Lab)	Nursing (5) Allied (4) Student Allied (2) Faciltators (2)
04/04/19	VT arrest (Cath Lab)	Nursing (3) MIT (3) Physiologist (5) Trainee Physiologist (1) Facilitators (3)
04/04/19	VT arrest (Cath Lab)	Cancelled – Facilitators (3)
04/04/19	VF arrest with airway management	Nursing (18)
20/06/19	Airway management	Nursing (9) Physiotherapists (3) Facilitators (2)
31/07/19	VT arrest (Cath Lab)	Cancelled – Facilitators (3)
31/07/19	VF arrest	Medical (2) Nursing (9) Student Nurse (1)
15/08/19	VF arrest	Nursing (9) Student Nurse (1) Physiotherapist (1)
29/08/19	Deterriorating Patient – Interdepartmental Cardiology / renal ward and ICU	Medical (5 – 3 Ward; 2 ICU) Nurses (7 – 5 Ward; 2 ICU) Charge Nurse (1) Clinical Team Co-ordinator (1)
19/09/19	Opioid Induced Ventilatory Impairment	Nursing (12) Charge Nurse (1) Physiotherapist (1)
24/10/19	VF arrest	Nurses (1) Charge Nurse (1) Physiotherapists (10) Occupational Therapist (1) Facilitators (2)
30/10/19	VF arrest	Medical (3) Nursing (11) Physiotherapist (2) Pharmacist (1) Social Worker (1)

Table 1. Summary of simulation-based educations undertaken until from October 2017 to October 2019 .
*Other areas outside of the 7th floor DPH

In the early days of facilitating in situ SBE the cardiac arrest scenarios generally continued until the SBE mannikin simulated a return to a normal sinus rhythm, to make the participants feel a sense of success. Once the participants were more confident with the programme, and the whole process of the SBE, we changed some outcomes to be negative for the patient (if this was clinically appropriate) depending on the scenario and the learning points envisaged.

The facilitators involved in the SBE programme on the 7th floor of Dunedin Public Hospital (DPH) during this time included a Clinical Nurse Educators (CNE); a Cardiologist, an Associate Charge Nurse Manager (ACNM) who covered the respiratory/cardiothoracic ward and the coronary care unit, and an Enrolled Nurse (EN). The Cardiologist was a NZRC Core Advanced Rescuer Course instructor, the CNE, and ACNM had completed the NZRC CORE Advanced Rescuer Course.The CNE, Cardiologist and EN had participated in formal education on simulation delivery.

Impact on practice

Latent risk category	Examples of risk	Corrective action
Equipment	• AED set to wrong program (three stacked shocks) • PEEP valve fell apart • Defibrillator placed on bed for transport, easy to knock off	• Incident report and updated program immediately • Incident report and ordered new style of PEEP valve • Tray recommended and able to be sourced from central area.
Environment/staffing Knowledge and skills Recurring risks	• Delayed chest compressions or application of defibrillation pads • Unaware where anaphylaxis box is stored • Bag-valve mask left on bed with defibrillation • Medication not checked • Unfamiliar with NZRC ACLS flow diagram or not used • Not transferring NZRC CORE training into clinical the environment • Uncertainty of roles • Unfamiliarity with emergency drugs • Closed loop communication absent and/or participants quietly spoken. • Team Leader/Leadership not apparent (not transferring NZRC CORE Advanced Rescuer training into clinical environment) • Unfamiliar with resuscitation documentation	• SBE reports circulated and education added to yearly CPR updates for nurses • Staff to re-familiarise (already in nursing orientation checklist) • Reminder to remove • Reminder during debrief to check medications • Education and familiarisation via team meetings and other opportunities as able • Yearly updates became in situ SBE involvement • Education and discussions occurred • Education undertaken immediately with teaching tray • Discussed in debrief • Asked NZRC CORE Advanced Rescuers to role model resuscitation leadership role • Education given as able and advice to familiarise self in own time

Table 2. Latent safety risks discovered as well as solutions utilised during in situ SBE programme.

Knowledge deficits revealed

Our in situ SBE program showed that participants of differing professions, as well as experience levels, asked questions and requested clarification of our clinical quidelines. These factual knowledge questions included how and when to give resuscitation medications (adrenaline and amiodarone).

A further knowledge deficit noted was following a change in the way pharmacy stored the drugs within the emergency trolley. The SBEs regularly had some participants who were not aware of the contents of the emergency trolley's drug tray. This knowledge deficit was considered potentially related to a paper map cover being placed over the drug tray by pharmacy. The map indicated where the drugs were within the trolley. The sealed and dated tray meant that daily checks of indivdual drugs within the emergency trolley were no longer required, which saved time. However, this change has limited the staff exposure and familiarity to the emergency drugs. To resolve the lack of familarity with ermergency drugs, as well as the SBEs, mini education sessions occurred, utilising a teaching tray holding the real drugs during the clinical huddles, or as the opportunity arose.
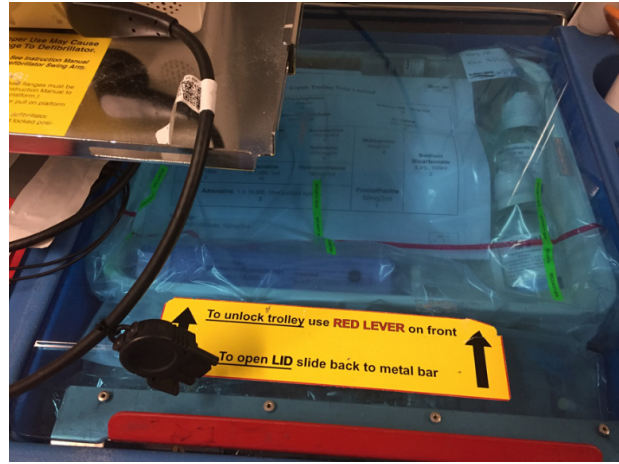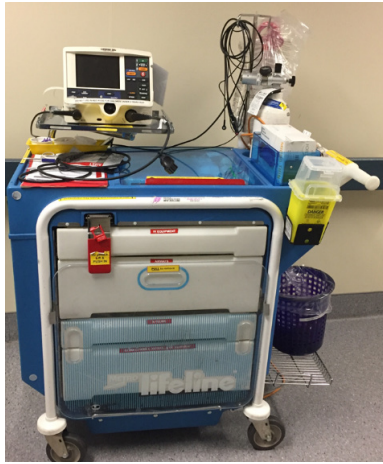
Figures 1 & 2. Drug tray utilised for teaching purpose. A significant knowledge deficit was revealed and responded to.
Source: Joanne Robertson-Smith.

Significant knowledge deficits were revealed and resolved and knowledge transfer was reportedly occurring into actual patient care. The most significant feedback came from a member of the clinical leadership team who acknowledged the positive impact of in situ SBE translating into improved teamwork and understanding of roles during a cardiac arrest. This was revealed specifically during a cardiac arrest which occurred in the ward. The caridac arrest could have been quite traumatic, but two members of the team reported feeling more positive than they expected due to the previous practice they had undertaken during SBE. Additionally, feedback was received from nursing leadership that teams appeared more confident with cardiac arrest scenarios in general.

From the CNE's perspective the initial learner responses to in situ SBEs appeared very positive and many staff reported that they intented to participate repeatedly as participating in the in situ SBE made them feel more confident, they valued it and saw benefit. These benefits included improved communication, teamwork, and an enhanced understanding of roles, including those of other healthcare professions. There was an acknowledgement from staff that it was valuable to practise clinical situations which do not happen very often, but when they do require a prompt and confident response. The feedback was simlar to a Canadian paediatric acute inpatient study which discussed participants who valued interprofessional SBE, wanted more, and shared that SBE increased participant confidence, communication and their understanding of healthcare professionals roles (Kotsakis, Mercer, Mohseni-Bod, Gaiteiro & Agbeko, 2014).

During the second year of our in situ SBE program new defibrillators were introduced to our hospital. In situ SBE was utilised to assit with embedding the new device into clinical practice. Some participants reported that it was great to practise utililsing the equipment (especially new devices like the defibrillator) and visualise and discuss the emergency drugs. Some participant reports stated that this familiarisation assisted with decreasing staff anxiety about patient resuscitation as well as highlighting aspects around performance which could be improved.

Value for new staff

SBE has noted to be value for our new staff members, specifically one new Registered Nurse (RN) who was involved in an in situ SBE described here. One of the advantages in situ offers is the ability to easily follow up with

staff after the SBE as the facilitator and participants share the same environment. The RN discussed the SBE with the facilitator and felt that the understanding she had gained from the SBE was very valuable. Later on that day the new RN was involved in the care of a patient who had a prolonged refractory VT/VF cardiac arrest. The next day the new RN shared that she was not sure how she would have managed had she not undertaken the in situ SBE the day before. During the cardiac arrest, the new RN competently and confidently undertook the airway management role within the cardiac arrest.

Latent risk identification

There are risks related to clinical practice and it is important to decrease errors and increase patient safety (Motolo, et. al., 2013). Healthcare is complex and latent risks can change suddenly. Sharing learning points around patient safety risks are important (Spur, et. al., 2016). Possibly, if we share our identified latent safety risks, these errors can be eliminated (Ma, Bunting, Avery, Fawcett & Carter, 2018) and sharing our findings inside and outside our organisations is subsequently of great benefit.

Our in situ SBE programme discovered a significant and surprising latent safety risk in May 2018. During an in situ SBE it was identified that the Philips Heartstart FR2 automated external defibrillators (AEDs) behaved unexpectedly. Upon investigation, the AED programme was set to an outdated programme based on the previous NZRC's ACLS algorithim. This pre-2010 algotithim recommended clinicians administered three stacked shocks in the presence of VF or VT, before users commenced chest compressions. In our simulation, there was confusion and delay in treatment as the device advised that chest compressions be delayed as the device attempted to deliver three shocks, whereas the staff expected a single shock. This was recognised as a serious patient latent safety risk and was escalated immediately to senior management and resolved. The FR2 AEDs throughout the hospital were updated very quickly.

A second important latent risk identified was that a PEEP value was also used in an in situ SBE which came apart. Several different pieces of the valve ended up in different parts of the four bedded room. After this, another style of PEEP valve was ordered for the clinical environment, which was subsequently successfully tested in an in situ SBE.

An additional latent safety risk was noted within the Cardiac Catheter Lab (Catheter Lab) environment. The risk involved the Catheter Lab team being led by the interventional procedure operator during ACLS, which is not best practice. Nursing staff, or not primary operator medical staff, should also be comfortable to lead an ACLS scenario within the Catheter Lab allowing the operator to focus on the procedure. A nursing 'team leader' role was created within the Catheter Lab, and rotated each
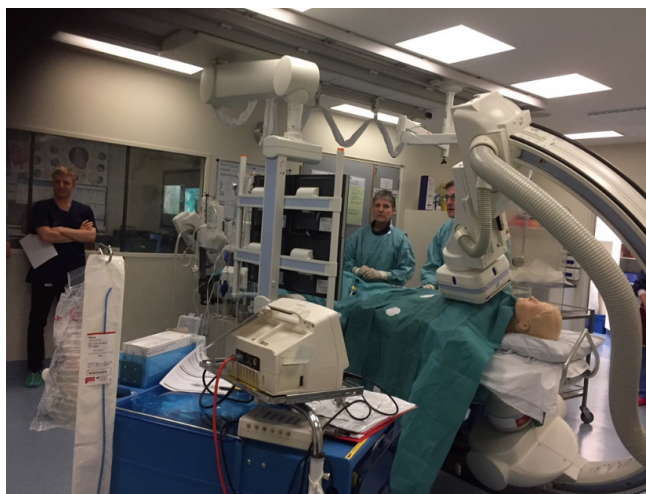
Figure 3. Catheter Lab in situ SBE which allowed staff to practice the newly created 'Team Leader' role. Source: Joanne Robertson-Smith.

day, to prompt staff to take this lead if required. This was a role that was then able to be practised again via in situ SBE.

Latent safety risk identification is one of the many good reasons to commence an in situ SBE programme (Garden, et. al., 2010). There are many publications on latent safety risk identification with in situ SBE, including conference proceedings in which the authors stated that they introduced in situ SBE to exposed latent threats within their healthcare environments (Ma, et. al., 2018; Thomson, Tan, Hellings, & Frys, 2016; Duffy, Brown, & Overly, 2012; Yajamanyam, Sohi, King, Wikey, & Sinclair, 2012). These presentations revealed concealed patient safety issues and one department identified 20 significant risks out of 54 SBEs (Duffy et al., 2012).

Garden et al, (2010) shared their initial observations of an in situ simulation training programme in Wellington Hospital, which focused on paediatric cardiac arrest scenarios. These authors identified many latent safety errors, the most significant was the inconsistency in the ability of staff to unlock and open their resuscitation trolley. Other studies shared that within 90 SBEs undertaken they identifiyng 73 latent safety threats (Patterson, Leis, Falcome, Le Master & Wears, 2013) and within 114 SBE undertaken just over one (1.1) latent safety threats were discovered per scenario they facilitated (Cauto, Bareto, Morcon, Matra & Acors, 2018). The highest proportion (41%) of Cauto and colleagues discovered latent safety threats were attributed to equipment failure.

Equipment failure findings serve to remind us of the importance of authenticity in our in situ SBE programmes, so we are aware of where the potential equipment failures exist. Authenticity, or maintaining normal departmental processes is more likely to reveal latent safety errors (Spur, et. al., 2016). In undertaking an in situ SBE within our Radiology department, one facilitator brought in equipment from another area, which Radiology would not stock. A co-facilitator who observed this reminded the facilitators of the importance of keeping the SBE authentic, to test the departments own processes. The additional equipment was removed from the SBE. Authenticity meant the clinical environment having only what the staff would normally use (not what we could bring in from elsewhere), therefore removing this equipemnt meant the Radiology department's systems were authentically tested.

CHALLENGES

It is acknowledged that it can be difficult to establish a simulation programme within hospital clinical areas (Spur, et. al., 2016). Despite the positive outcomes mentioned above, there were many in situ SBE facilitation challenges. Our challenges included co-facilitator availability, a lack of realism, and some SBE participation aversion.

Colleagues (both facilitators and participants) were uncertain in their ability to participate in our planned in situ SBE. This is a reflection of the busy clinical environments in which healthcare professionals work in.

As noted previously, authenticity is an important aspect to our simulation programme. Making SBE as real as possible, utilising real clinical areas and real equipment, is beneficial not only for revealing latent safety risks but for also making the SBE realistic enough for the participants to engagement in it effectively. A lack of realism was consistently fedback in the early days of our in situ SBE programme, but improved with increased participant exposure. This change was not due to an increase the fidelity of the SBE undertaken, therefore we feel it is most likely due to participants having repeated exposure to in situ SBE. Realism became a regular discussion point during the pre-brief, and without this discussion the lack of realism experienced by participants would often become a major distractor for participants during the debrief.

The prebrief also involves creating a safe learning environment and our in situ SBE programme believes this is important as SBE scenarios tend to challenge participants and failures can be generated and consideration to the subsequent negative emotions and how to avoid them should occcur (Rudolph, Simon, Rivard, Dufresne & Raemer, 2007). In addition to creating a safe learning environment for the participants however, the prebrief

also allows the development of a shared understanding with regard to the scenario and the fidelity, prior to commencing the simulation itself.

SBE participation aversion was noticed and it was disclosed by some individuals that they felt they had never been a part of in situ SBE before. Younger staff appeared more familiar and comfortable with SBE. In two of our SBE, a student nurse and newly practicing RN confidently took the first responder role. We considered it is likely this confidence is related to the undergraduate nursing education curriculum in which students undetake SBE. The SBE participation aversion appears to have decreased as SBE becomes more frequently utilised.

Interprofessional education

The in situ SBE programme has given the opportunity to engage in interprofessional education (IPE), which is when two or more professionals engage in a healthcare experience to achieve a shared outcome or objective. The World Health Organisation sees IPE as a key factor in obtaining complex healthcare goals now and into the future (Reeves, Perrier, Goldman, Freeth & Zwarenstein, 2013). IPE will assist healthcare professional's skills to work in a collaborative manner and this is critical to the provision of excellent healthcare delivery, especially to complex patients.

In October 2017 our in situ SBE programme commenced utilising nurses only. By February 2018 the inclusion of the medical profession occurred. The majority of medical participants were Trainee Interns and House Officers. At the end of the two year period described, our SBE programme began co-facilitating with a physiotherapist and had physiotherapy participants and occassionally members of differing healthcare professions (see Table 1).

Interdepartmental education

Our SBE programme extended to our Dialysis and Radiology departments where we facilitated SBE. We also assisted other departments by co-faciltiating and sharing what we had learnt. Resources were shared between departments and this was encouraged by OSIG, saving time planning.

One of our most rewarding and challenging SBE was an interdepartmental SBE, which was undertaken between the cardiology and renal acute care ward teams and the Intensive Care Unit. The scenario was a cardiology patient who went into a sudden pulmonary odema. This gave the acute care area the chance to practise the newly established observation early warning score and escalation pathway. There was also a newly established Clinical Team Co-ordinators (CTC) role within Dunedin Hospital, which was a nursing leadership role to assist with patient deterioration situations. The SBE gave us an opportunity to practise and reflect upon this new role. This was the first time testing the new innitative and it was viewed very positively by most of the staff involved and the facilitators. The SBE highlighted the management of a patient who may imminently require a rapid sequence intubation and the use of high flow nasal cannula and other learning outcomes were noted. Interdepartmental SBE reveal wider organisational knowledge, understanding and risks. However, the time to create and organise the larger interdepartmental SBE, as well as facilitate them, is much higher than a SBE centralised to one area.

CONCLUSION

In our experience, in situ SBE is an educational modality which provided effective clinical learning. In situ SBE also revealed educational deficits and patient latent safety risks, which could be easily resolved, within our acute and critical care clinical environments. With perseverence and flexibility, the main hurdles of co-facilitator availability and realism can be overcome.

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COLLABORATION BETWEEN CLINICAL PRACTICE PROVIDERS AND A SCHOOL OF NURSING: NOW IS GOOD

Ruth Crawford, Lyn Wardlaw, Nicola Hughes and Helen Lelean

INTRODUCTION

Nursing education prepares undergraduate students for a nursing career and clinical practice providers provide the career opportunities. That much is true, but as we emerge from the COVID-19 pandemic, it has become clear that a theory-practice gap still exists. In this opinion piece, we provide a success story which demonstrates how a collaboration between nursing education and practice is reducing the theory-practice gap.

In the past, nurses were educated in hospitals, through an apprenticeship system which met the needs of the hospital and health providers, but frequently put patient needs before student learning. That all changed in Aotearoa/New Zealand in the 1970s and 1980s following a report (Carpenter, 1971) which sharply criticised this model and recommended moving the education of registered nurses away from health providers and into tertiary institutions. As a consequence of this move, the health care system became distanced from involvement in the development of nursing curricula. This was problematic when schools of nursing were preparing students for a career in that health system. When health care providers are removed from the day-to-day organisation of nursing education and nursing education providers move away from patient management, there becomes a divide, leading to nursing staff to sometimes being unwelcoming to students and graduating students struggling to 'hit the ground running'.

In Taranaki, New Zealand, we are working hard to change that model and to improve communication between nursing education and nursing practice provision. A new Director of Nursing at the Taranaki District Health Board (TDHB) and a new Director of the School at the local nursing education provider, the Western Institute of Technology (WITT), have combined forces. They are collaborating to develop WITT nursing graduates who are socialised into nursing practice and supported in their education as they begin their nursing career. Many of those nursing graduates are the future employees of TDHB so it is in everyone's interest that education and health provision work together.

There have been a number of initiatives over the past year to increase collaboration. In mid-2019, a Joint Clinical Monitoring Committee (JCMC) was established to increase communication and collaboration, meeting two-monthly to discuss curriculum, student and career planning issues that arise. TDHB appointed a Nurse Educator who focuses on undergraduate nursing education and Nurse Entry to Practice (NEtP) graduates, and WITT appointed a Lead, Nursing and Mental Health, to coordinate and liaise with TDHB to ensure that the curriculum is responsive to practice. In October 2019, WITT adopted a new undergraduate nursing curriculum, developed by the Ara Institute of Technology. With the support of Ara and TDHB, the curriculum was implemented to commence in 2020 for Year One and Two nursing students.

In late 2019, the Chief Executive of WITT and the Chief Executive of TDHB developed a Memorandum of Understanding (MoU), agreeing to establish an enduring partnership between the TDHB and WITT, and allowing for the exchange of information, experience and expertise. WITT are committed to producing the best nurses for Taranaki and beyond, and TDHB want to give those nurses the best start, providing the region with an even more capable health care workforce. The purpose of the MoU is to establish mutual trust, conventions and tacit understanding; the basis of a strategic cooperative partnership. From the MoU and collaboration between Directors and lead staff, in mid-2020 WITT and TDHB are establishing Dedicated Education Units (DEUs), clinical areas where student learning is at the forefront, and clinical staff have opportunity to be engaged and active in student learning.

Collaboration cannot be taken for granted; like any relationship it has to be consciously worked on and nurtured. For this article, the two Directors (Lyn Wardlaw (LW), Director of Nursing, TDHB, and Ruth Crawford (RC), Director, School of Nursing, Health and Wellness, WITT) and the two Leads in nursing and education (Nicola Hughes (NH), Nurse Educator, TDHB, and Helen Lelean (HL), Lead, Nursing and Mental Health, WITT) independently responded to specific questions about collaboration between education and practice. Responses to the questions are identified from each respondent, to enable the reader to gain an understanding of collaboration from the perspective of each respondent.

What do you understand by the term 'collaboration' in relation to nursing education?

LW (practice): If nurses are to be as effective as possible in helping to provide high-quality patient care, they'll need to be better prepared as care becomes more complex and shifts to the home and community. We also need more nurses with advanced degrees to provide primary care and to teach the next generation of nurses. A bachelor's degree in nursing best prepares nurses to take on increasingly complex roles.

Studies have demonstrated how effective coordination and communication among health professionals can enhance the quality and safety of patient care. Health professionals working collaboratively as integrated teams draw on individual and collective skills and experience across disciplines.

RC (education): Nursing education has to be a team effort; it takes a community to grow a nurse so collaboration between education and practice is vital to ensuring our graduates are prepared for the world of nursing practice. As educators, we need to ensure that nursing education is relevant, evidence-based and future focused. Collaboration not only with health providers, but with regulators (Nursing Council of New Zealand) and other education providers in New Zealand and around the world, ensure we are educating nurses for the practice of nursing, wherever they may choose to go.

NH (practice): Collaboration is about working together to achieve a common goal. It requires open communication, trust and appreciation for diversity of ideas. In regards to nursing education our main goal is to ensure nurses work together with students to provide them with learning opportunities and support them to grow and develop their practice and assist in linking theory to practice in a clinical setting.

HL (education): Working together with stakeholders to provide the best possible clinical experience for nursing students. The ultimate aim is to collaborate effectively with members of the healthcare team for all clinical areas e.g. community and hospital.

What is the primary role of nursing practice providers (such as TDHB) in undergraduate nursing education?

LW: Learning skills to effectively work in teams so they can provide collaborative, safe, high-quality, accessible patient-centred care.

RC: Nursing education must be grounded in nursing practice, so practice has a pivotal role in providing students the opportunity to practise the theory and competencies they have learnt in the classroom and simulation. Nursing practice providers need to give students learning opportunities so they can safely and securely practise their learning in a supportive, nurturing environment. The nursing profession must take control of the education of future nurses, thus ensuring that practice changes are embedded into curriculum.

NH: Our primary role from TDHB is to support and facilitate learning opportunities for the nursing students in a variety of clinical settings. They are our future nurses and we want to grow and foster them to ensure they are as workforce ready as possible when they are qualified. We maintain open communication channels with WITT to ensure we are providing consistent messages to all staff and students.

HL: To provide the best possible clinical experience for undergraduate nursing students. This should include preceptorship and a supportive learning environment which will help to prepare nursing students for the role of Registered Nurse (RN).

What is the primary role of nursing education providers (such as WITT) in undergraduate nursing education?

LW: To ensure that all nursing students are work ready to begin their nursing careers, that being said, to ensure the nurse knows when to escalate; knows their own abilities, has insight and is able to critically think within their scope as new learners.

RC: Education providers have a responsibility to ensure the education they are providing is relevant, evidence-based, and will prepare students for nursing into the future. Undergraduate education is just the beginning for nurses; we need to ensure they become lifelong learners, constantly adapting and changing to the needs of health care systems and populations. Education is preparing students to practice inter-professionally with a diverse population.

NH: To support students with their academic learning and substantially strengthen and embed evidence-based practice learning and research. WITT also work together with TDHB staff to provide appropriate learning environments for students.

HL: To provide the most up-to-date evidenced-based nursing knowledge and support them throughout the nursing programme to achieve their potential of becoming a Registered Nurse. This will also include providing pastoral and academic support.

What changes have occurred between WITT and TDHB which have enabled/facilitated collaboration in undergraduate nursing education?

LW: Better communication, team work and a central desired outcome to have work-ready nurses as new practitioners.

RC: The biggest change is the development of a trusting relationship between education and practice. Education trusts that the DHB will provide a quality learning experience and that student's learning needs will be considered when they are on placement and the DHB trusts that WITT will provide students who are well prepared for clinical practice, eager to learn from RNs and other inter-professional staff, and willing to take feedback on their performance.

NH: There have been newly appointed people into key positions that influence the working relationships between WITT and TDHB. New ideas and perspectives have been introduced and there is a real sense of working together to address any concerns with the common goal of supporting our students and nursing staff.

HL: A change of Director of Nursing at both TDHB and WITT, as well as the CEOs working together to sign a Memorandum of Understanding, has improved the relationship and collaboration between both areas. A DEU model is planned for next semester which has also enabled more facilitation between WITT and TDHB.

What hinders collaboration between nursing education providers (WITT) and nursing practice providers (TDHB)?

LW: Poor communication and differing visions.

RC: Poor communication and misunderstandings could hinder collaboration; it is vital that we continue to discuss practice and education concerns, that we share ideas, listen and support each other, and constantly check we have a common vision and purpose.

NH: I wouldn't say hinders but what may cause confusion initially is not knowing the expectations/roles they have of each other. There is also an element of resistance at times from the ward staff not being fully aware of what a student can and cannot do. This has a flow-on effect for the students who can feel like a burden.

HL: The change of curriculum has the potential to cause issues, for example Preceptor requirements have changed and staff (RNs) are not totally familiar with the requirements as yet.

What enhances collaboration between nursing education (WITT) and nursing practice (TDHB)?

LW: Opposite of the above = good communication and the same vision.

RC: What has worked is sharing ideas, discussing issues as they arise, providing informal and formal opportunities to meet. I have valued monthly informal catch ups with LW where we can discuss what is going on and plan the future, as well as the more formal Clinical Monitoring meeting and DEU planning. There is regular communication between NH and HL as well, acting on issues of concern, student placement issues, students who need extra support. All these opportunities enhance our collaboration and enables us to work together to a common goal.

NH: Communication! I cannot emphasise this enough. Without effective communication and sharing of information, there is no collaboration.

HL: Clear communication and regular JCMC/DEU meetings, and also good communication between Directors of Nursing at WITT and TDHB and Lead and Nurse educators. Good communication with the Nursing Lecturers and clinical staff.

How did COVID-19 affect the collaboration between WITT and TDHB in relation to nursing education?

LW: I believe it enhanced our collaboration for the better.

RC: We had a Clinical Monitoring meeting the day before lockdown and I was impressed at the way TDHB was responding to the situation; calm planning and preparation, ready for whatever came their way. WITT gave all our Personal Protective Equipment to the DHB as at that stage there was uncertainty about their provision. They shared their planning with us which helped us understand the complexity of the situation. Very soon into the lockdown when WITT staff had relocated to their homes, LW contacted me to ask for nursing academics who are able to assist with health provision and we were really pleased to be able to provide support in this way. Pandemic planning has brought us closer together, reminding us that we are all RNs who are ready and able to work together to meet the country's health needs. When we moved to Alert Level 3, the DHB expressed a willingness to place

students in a variety of clinical environments with a range of support. We were very excited that the DHB would provide this opportunity for students to learn about pandemic health provision.

NH: It affected the students' placements and made it challenging to accommodate more students in the acute clinical setting due to reduced services/staff. However, both WITT and TDHB worked together to ensure student safety came first; placements were returned to normal when possible and students were provided with education around PPE/COVID-19 and had opportunities to ask any questions to relieve their anxiety about returning to placement.

HL: We were all under pressure but there was clear regular communication throughout COVID-19 and the TDHB were keen and able to still support the students by providing them with placements as soon as they could. Understanding between the two parties was paramount and demonstrated throughout Level 4 down.

What is the future of nursing education collaboration in Taranaki?

LW: Great nurses for our region.

RC: At WITT, we are very excited about nursing education in Taranaki. We have a positive, constructive relationship with TDHB and other health care providers; we are working with TDHB on establishing Dedicated Education Units together; we are working towards the provision of a health education centre on the hospital site, where nursing students and academics can be based, leading to a closer relationship with health providers. Health providers are sharing with us their feedback of nursing student's preparedness for practice which in turns supports and enhances our curriculum.

NH: Our exciting new Dedicated Education Unit concept! This will help grow the relationships TDHB have with WITT and provide amazing opportunities for ward staff to be in a position to work with students and foster their learning on a one-to-one basis. The DEU will provide collegial relationships between WITT staff, students and TDHB staff.

HL: Increase in student numbers by improved collaboration with clinical partners for example, external partners, Aged Residential Care, ARC, primary care, mental health. Continued communication with all clinical partners

How can we achieve the future as noted in the question above?

LW: Same vision, same expectations and working together for the same reason.

RC: By continuing to liaise closely, listening to each other, sharing ideas about the future, hearing the concerns each other has and developing actions which support and develop nursing education in Taranaki.

NH: By working together to ensure the pilot is successful. Being open minded and considerate to all feedback provided.

HL: Continued good communication and discussions around clinical placements and regular meetings to discuss ways that we can improve the process.

CONCLUSION

This paper arose from reflections during the COVID-19 pandemic, specifically on improving the collaborative partnership between nursing education and practice. Collaboration in nursing education provision requires effective communication between health and education providers and a willingness to share ideas. The development of skilled, competent nurses is our collective responsibility; working together we are much more effective than working in silos apart. Inevitably there are always challenges in the partnership as sometimes our needs are different, however we are all committed to working together to overcome these as they arise.

In Taranaki, we are fortunate to have shared aspirations for nursing education and practice; the same expectations and the same vision, working collaboratively to ensure we have excellent nurses to provide nursing care in the region and beyond, into the future. This strategic partnership is enabling practice and education to work together to improve the quality of nursing education and thus, patient outcomes.

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FIT FOR EDUCATIONAL PURPOSE?

THE FINDINGS OF A MIXED METHODS STUDY OF NURSES' DECISIONS TO PARTICIPATE IN PROFESSIONAL DEVELOPMENT AND RECOGNITION PROGRAMMES

Samantha Heath, Sally Clendon, and Roberta Hunter

INTRODUCTION

Precursors to Professional Development and Recognition Programmes (PDRPs) emerged in the United States during the 1980s and, over the past three decades, have become well known and used in New Zealand. Pedagogically, PDRPs are often underpinned by the seminal work of Benner (1984) which supports nurses to develop critical and clinical thinking and importantly, expertise. As a tool supporting Continuing Professional Development (CPD), a PDRP has additional benefits. These include validation of regulatory continuing competence requirements and, at some levels, a financial reward. Yet, when given the option to participate in a PDRP, nurses choose not to. This article reports on findings from a recently completed, mixed methods study where nurses' decisions to participate in a PDRP were examined. Their explanations portrayed how they were positively disposed to the programme but that time, confusion between regulatory competencies, and PDRP requirements, together with the responses of their colleagues, often made crossing the divide between simply liking the idea of PDRPs and submitting a portfolio impossible. Given this context, are PDRPs still fit for purpose?

BACKGROUND

PDRPs grew from the need to document the contribution of nursing during significant change in the New Zealand health system (Peach, 2013). Portfolio development presented a way of increasing the visibility of nurses' contributions to healthcare. The concept grew, and the first PDRPs emerged, mirroring advances in the USA where ladder systems supported professional development. Ongoing refinement was tailored to include the needs of multiple stakeholders. Each programme had a local flavour with discrete submission requirements, and some organisations made PDRPs compulsory. In subsequent decades, PDRPs have continued to mature, and programme numbers have steadily increased (Nursing Council of New Zealand, 2016). Present-day descriptions of the outcomes of PDRPs now articulate their role in the advancement of nurses' professional development and in supporting the demonstration of competencies required by their regulator (Canterbury District Health Board, 2020).

PEDAGOGY

Arguably, the most important stakeholder in a PDRP is the patient. Patients should have reasonable expectations that they will be attended by a practitioner who can provide high-quality care with the best health outcomes. Furthermore, evidence exists to support the view that when care is provided by nurses who are expert practitioners, detection of deterioration is enhanced, there is timely mobilisation of healthcare resources and improved clinical decision-making (Manley, Hardy, Tichen, Garbett & McCormack, 2005; Minick & Harvey, 2003; Morrison & Symes, 2011). It might be important then to find that modern CPD programmes were based on contemporary pedagogies that promoted acquisition of expertise. Championing this space, a PDRP sits as an example of the use of Benner's (1984) 'Novice to Expert' theory to underpin the learning outcomes of CPD, and reflects a pedagogy that principally values the development of expert practitioners. It is purported to do so by encouraging the use of educational strategies like reflection to facilitate nurses' professional growth (Benner, 1984).

When used effectively, reflection encourages nurses to 'see' their clinical practice through the task of writing practice exemplars. Indeed, beyond the initial level, a PDRP portfolio contains just this type of evidence. Subsequent assessment is based on evidence of professional behaviours consistent with Benner's (1984) 'Novice to Expert' practitioner characteristics. Successful assessment enables progression, and achievement of the highest levels is financially rewarded. Portfolios are valid for three years after which they are re-presented with new exemplars demonstrating continued professional development.

STAKEHOLDER PERSPECTIVES

PDRP stakeholders include the Nursing Council of New Zealand (NCNZ). Their formal approval of a PDRP delegates responsibility for assessment of continuing competence requirements to local assessors. For NCNZ, approval reduces the significant workload of validating continuing competence required as part of the Health Practitioners Competence Assurance Act 2003. In exchange, nurses who participate are excluded from NCNZ's random recertification audit process. For employers, there comes an assurance that nurses have met their regulatory requirements. Furthermore, as a tailor-made career framework, an approved PDRP has quantifiable financial risk implications, and the 'approved status' might signal a level of organisational commitment to nurses' professional development.

Alignment of PDRP requirements has been the concern of the National Evidential Working Group who first met in 2005. This group has provided clarity about PDRPs as a legitimate CPD activity and has actively promoted its recommendations for PDRP evidential requirements. The most recent version of these was endorsed by the Nurse Executives of New Zealand (2017); (Evidential Requirements Working Party, 2009). With publication, came the clear directive that there should be national consistency across all programme providers within five years.

Continued work, started by the New Zealand Nurses' Organisation (formerly New Zealand Nurses' Association), demonstrated the benefits associated with using remuneration packages and frameworks like PDRPs (Buchan & Thompson, 1997). Allowances are now included in the Multi-Employer Contractual Agreement (MECA). More recently, two days of paid study leave have been included for the preparation or maintenance of a PDRP portfolio in order to encourage nurses to participate.

Unmistakably, there have been extensive efforts to support contemporary PDRPs for nurses. It might be supposed that nurses would participate in large numbers, given the array of available benefits. Yet, if engagement rates collated by the National PDRP Co-ordinators group (2014, 2015, 2016) were considered as proxy for nurses' voice on their eagerness for uptake, a PDRP might not be the framework of choice. In organisations where a PDRP is compulsory, participation rates are above 80 percent while in those where it is voluntary, rates are below 20 percent (National PDRP Co-ordinators 2014, 2015, 2016). If the PDRP truly is fit for future purpose, then there must be greater understanding of voluntarism in nurses' decisions to participate in a PDRP.

ENGAGEMENT WITH CPD: THE CHAIN OF RESPONSE MODEL

Cross (1981) favours the view that a myriad of factors affects a decision to participate in any adult learning. Visualised in the 'Chain of Response Model' a dynamic interaction between the factors, each factor impacting an eventual decision to participate is indicated (see Figure 1). The factors are entirely learner focussed and, as such, penetrate the temptation to assume that the benefits provided by well-constructed pedagogy, regulatory compliance or financial reward are sufficient to ensure participation. Undoubtedly, the model could be used to examine nurses' PDRP participation. Used as the conceptual framework, the Chain of Response Model (Cross, 1981) provided structure across all phases of the work.
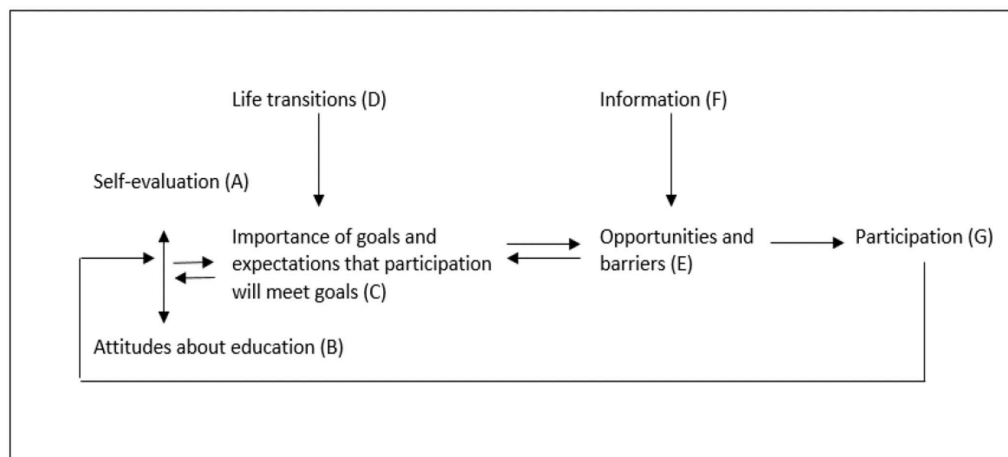
Figure 1. Chain of Response Model Source: Cross (1981).

ETHICAL CONSIDERATIONS

Massey University Human Ethics Committee (MUHEC) approval was granted in March 2016. As part of the ethics approval process, the Senior Leadership Team and Māori Advisory Group at the organisation were invited to review the study proposal and consider providing their support. Access to relevant nursing staff and use of organisational resources was formally granted in conjunction with MUHEC approval.

METHOD

The research was conducted in a specialised health support service Crown entity where nurses had access to a voluntary PDRP approved three years previously by NCNZ. Financial rewards were available for completion of the two highest levels; the organisation was invested in nurses' CPD and yet, participation mirrored national rates of less than 20 percent. Teddlie and Tashakkori (2009) and Robson and McCartan (2016) independently suggested that indicators like these participation rate discrepancies are justifiable reasons for undertaking research. They further explained that answering questions about practice using research means that answers are more likely to be valued and contribute to improvements in practice. Their approach is one of pragmatism (Teddlie & Tashakkori, 2009; Robson & McCartan, 2016).

The adoption of a pragmatic approach and use of an explanatory-sequential mixed methods design created the opportunity to use quantitative and qualitative data to understand nurses' decisions to participate in PDRPs. As with all mixed methods designs, there must be a mixing of the data between each phase of the study (Creswell,

2009). Postal surveys were used to identify nurses' knowledge and attitudes to PDRPs in Phase 1. Data from the surveys were analysed and formed the basis for the questions asked in Phase 2, semi-structured interviews. Here, nurses explained insights from the quantitative data (Phase 1). Interpretation through data convergence illustrated the existence of consistencies or contradictions and signposted likely underlying explanations (Moseholm & Fetters, 2017); (see Figure 1).

Phase 1: Postal survey

Postal surveys were distributed to a convenience sample of 129 Registered and Enrolled Nurses employed on the day the survey went live. The choice to use postal surveys allowed for the geographic distribution of potential participants and their sporadic access to digital devices for online completion. Nurses were eligible to participate whether they had completed the organisation PDRP or not, as long as they were not in a 'senior' nursing role.

Survey questions invited a response about knowledge of PDRPs, disposition toward CPD and PDRP activity. Responses to factors identified from the literature as affecting participation in CPD were recorded. Demographic information was obtained. Participants were invited to add free-text responses for any unaddressed areas. There was a 64 percent response rate (n = 82) when the survey closed.

Phase 2: Semi structured interviews

Thirty-six of the survey respondents volunteered to be interviewed: 15 were arranged, 14 were conducted. Interviewing survey respondents enabled the sample to be nested, further strengthening the design through mixing both sample and data between phases. A general inductive approach was taken to analyse the interview transcripts (Braun & Clarke, 2006).

NURSES' EXPLANATIONS

No single factor materialised as the chief influence on PDRP participation from the survey data. Instead, knowledge about the relationship between PDRP; regulatory requirements and programme processes were highlighted as being problematic. These issues were followed-up at interview. Some of the most noteworthy findings are presented below.

A: Self-evaluation

Nurses perceived themselves positively as learners. The quantitative data showed their experience of professional development was such they believed further learning would enhance their clinical skills. Eighty-five percent (n = 70) agreed/strongly agreed that they were capable of completing a PDRP. Yet the optimism reported in the survey appeared contradictory to interview narratives which identified PDRPs as being daunting for beginners. Further, explanations of of why 'understanding what to write to validate NCNZ competencies' was the fourth greatest factor impacting on completion of a PDRP, illustrated the obstacles nurses encountered during PDRP preparation. Examples of the converged data demonstrate how knowing what was required and the preferred writing style were problematic (see Table 1).

Chain of response: A: Self-evaluation
The way in which each learner perceives their own ability to succeed

Associated survey theme	Quantitative data	Qualitative data example	Associated interview code	Data convergence
I am capable of completing a PDRP portfolio	Agree (n = 38) Strongly agree (n = 32)	*For a beginner, PDRP is daunting*	Options work	No
Understanding what to write to validate NCNZ competencies	Ranked 4 as a factor influencing engagement	*Some of them you have to read a couple of times to try to decipher what they are actually wanting. A lot of it is to do with that language thing of how do I answer that?* *It is actually quite hard to try and write that stuff down and so I know that some people are struggling with that and I think they just give up.*	Competency validation	Yes

Table 1. Self-evaluation.

B: Attitudes about education

An outcome of previous experience and the impact of significant reference groups, attitudes about education were both cumulative and fragile. Having indicated they were motivated to complete PDRPs in the survey, interviews showed how nurses' efforts could easily be derailed by programme facilitators or peers. Talking about her PDRP experience, one nurse showed how continued requests for revisions from an assessor impacted on her motivation to complete her PDRP (see Table 2). Eventually, she changed her mind about participating. Another nurse indicated how her understanding of the process became confused during meetings with a PDRP leader.

Nurses were also keen observers of those undertaking PDRP. It seemed that those who had not yet started PDRP experienced the process vicariously via their colleagues. Table 2 shows how those who had difficulties preparing their PDRP portfolios could influence the attitudes of others. More troubling though, was the recognition that these narratives came from nurses who had been dissuaded in previous employment. These nurses told how they carried exposure to vicarious experiences with them between jobs. Their vicarious PDRP encounters influenced their decision to participate years later. Fortunately, one beacon of light remained. The PDRP-friendly charge nurse who was an anchor and cheerleader when it mattered most.

Chain of response: B: Attitudes about education
An outcome of previous experience and significant reference groups

Associated survey theme	Quantitative data	Qualitative data example	Associated interview code	Data convergence
I am motivated to complete a PDRP portfolio	Agree (n = 35) Strongly agree (n = 16)	*Initially I wanted to do my PDRP for my own self and to further my own knowledge but it got to a point where actually no, I didn't want to do it anymore.* *Every time I had a meeting with the person who ran the PDRP, she just got me more and more confused.*	Personal experience of PDRP completion	No
My peers are supportive of me completing a PDRP portfolio	Neutral response (n = 38)	*We saw [nurse name] go through the process and she always put a lot of pressure on herself and was quite vocal with how difficult it was and I think people hear that.* *Initially seeing what she went through. She actually submitted her portfolio three times and had it sent back. And again, it impacted on me, because … this person was an epitome of an expert…*	Vicarious experience	No

Encouragement to participate received from different members of the clinical team	Charge Nurse and Clinical Coach roles identified as being the most supportive to PDRP completion	*Well, she's the person in charge and if she doesn't lead people to do it then how would you feel encouraged to do it?* *Oh definitely if you are endorsed by your Charge Nurse, it gives you confidence because then there is someone there that believes that you can do it.* *If you've got your boss saying you're good enough to do this portfolio, please do it – you are more likely to do it because your boss is saying you are good enough to do it.* *None of us had done one because it wasn't encouraged. It wasn't spoken about.*	PDRP friendly manager	Yes

Table 2. Attitudes about education.

C: Importance of goals

Notwithstanding that the underpinning pedagogy of this, the PDRP used in this study had been carefully crafted, intended learning outcomes that linked case reflections with improved clinical practice were simply not clear to participants. Nurses' goals for PDRPs were not focussed on clinical practice improvement through reflection on action. Yet, if participation was not about improving clinical practice, neither was it about pay allowances. Nurses ranked money tenth in influencing factors; they also argued in favour of professionalism over money as a better driver to participate. It was difficult to decipher nurses' goals of participation. However, when the 'value of the PDRP/continuing regulatory requirements relationship' theme was developed, nurses showed for the first time how PDRP participation avoided regulatory audit (see Table 3).

Chain of response: C: Importance of goals and expectations
The expectation that engagement will meet learning needs or aspirations

Associated survey theme	Quantitative data	Qualitative data example	Associated interview code	Data convergence
Completing a PDRP portfolio helps me to demonstrate my clinical capabilities	Ranked 7 as a factor influencing engagement	*I don't believe it makes me a better nurse.*	The value of the PDRP/Regulatory requirements relationship	Yes
The allowance that is available for completing some levels of the PDRP	Ranked 10 as a factor influencing engagement	*It had no bearing on my decision, none whatsoever.* *I don't know the numbers but that wouldn't be something that I actually consider too much.*	Money as motivation	Yes
Knowledge about PDRP	Professional requirements met by PDRP (n = 81)	*To be honest, I did it so that I wouldn't get audited.* *Because I don't want to be audited because it's sprung on me.*	The value of the PDRP/Continuing requirements relationship	No

Table 3. Importance of goals and expectations.

D: Life transitions

Older nurses considered that PDRP was no longer useful, suggesting a need to consider other ways to meet their CPD requirements (see Table 4). However, they saw disadvantage in not being excused from recertification audit but provided the following insight:

Other factors such as attending training sessions, lectures and participating in perfecting the actual tasks at hand are more beneficial (Respondent 43).

Chain of response: D: Life transitions
Concerns learners at different stages of their life cycle

Associated survey theme	Quantitative data	Qualitative data example	Associated interview code	Data convergence
Age	Additional qualitative commentary	*I found it so hard to complete and I am so close to retirement now I'm not going to bother.* *Coming to the end of career not planning on undertaking PDRP.*	Lifespan views	Yes

Table 4. Life transitions.

E: Opportunities and barriers

The top-ranked influence on participation was 'time' and discussion about 'time' began in the free-text responses of the survey. At the interview, the complexity of the issue expanded (see Table 5).

Chain of response E: Opportunities and barriers
Preparedness to overcome barriers to engage with the learning.

Associated survey theme	Quantitative data	Qualitative data example	Associated interview code	Data convergence
Time	Top-ranked factor influencing CPD engagement	*My lack of computer skills is an influence i.e. Time it would take me to type for myself.*	Time to learn new skills	Yes
		I think a lot people don't like to have to do things they consider work-related at home.	Personal time	Yes
		So, it would take you more than two days. *Well not having the time has put me off because I already know I am quite slow at things anyway.*	Having time	Yes
		And you have to accept that you've got to make it happen. *If I wanted to do it, I had to do it outside of work.*	Making time	Yes

Table 5. Opportunities and barriers.

There was a notion that 'time' was owned. Time could be personal (my time) or work-related (work time). If personal time was involved, the activity was the nurse's responsibility. In contrast, where the activity was undertaken during work time, it was an employer responsibility. However, delineation brought complications especially related to study leave.

PDRP study leave allocation was a contractual arrangement and inferred employer responsibility. Consequently, it created an expectation a PDRP was completed in the employer's time and was an employment matter. Yet, PDRPs also contained continuing competence requirements for which the employer is not responsible. The result was confusion and respondents were unable to separate regulatory competencies from job-specific ones.

Narratives also connected time with novel perspectives of PDRPs. The development of additional skills, before preparation for a PDRP could begin, took time. Skills included writing self or peer assessments for NCNZ or learning word-processing skills. For nurses who had completed a PDRP, an unforeseen consequence came from colleagues who expected assistance with peer assessment. This consequence was not welcomed because of the time involved.

F: Information

Cross (1981) indicated that information is the educational 'broker' for recruitment to learning opportunities. She further outlined how failure to provide sufficient information resulted in lost learning even in the presence of other motivating factors. In this study, nurses found themselves fielding inaccurate information about PDRPs from their peers and had to distinguish the correct information before they could begin (see Table 6).

Chain of response F: Information
The broker for recruitment to learning

Associated survey theme	Quantitative data	Qualitative data example	Associated interview code	Data convergence
Information about getting started on the PDRP is readily available to me	Agree (n = 48) Strongly agree (n = 14)	*...everyone talks about the PDRP and those people say, oh gosh – it takes so long. Oh, you've got to do this. Gossip. Second-hand information. Even before you get to even seeing what the PDRP actually is.*	Second-hand talk	No
		My only advice to anyone doing PDRP is don't listen to anyone else and do what suits you.	Overcoming hidden hurdles	No
Resources that help me to complete a PDRP portfolio are available to me	Agree (n = 42) Strongly agree (n = 13)	*It's all online, so it can be accessed easily.* *I found all the e-learn, the apps and that – I thought they were really good.*	E-learning support	Yes

Table 6. Information.

CONCLUSION

This research provides an opportunity to advance nurses' understanding about the purpose of PDRPs as a CPD framework. While there are benefits of completion in relation to recertification requirements, pedagogically these are not the focus of PDRP. Rather, the primary educational purpose is to develop expert practitioners. Clearly, these learning intentions are overshadowed by the more pressing need of the nursing community to avoid regulatory recertification audits. Consequently, PDRPs have yet to recoup the benefits identified by research like that of Benner (1984), Benner and Tanner (1987) and Manley et al. (2005), who showed the positive impact of expert nurses. Ironically, it is a consequence of embedding regulatory requirements within a voluntary programme that has obscured intended educational outcomes. In the absence of clarity, nurses have made the system work by linking PDRPs and NCNZ requirements to avoid audit rather than develop their nursing practice.

This study also uncovered the close attention nurses pay to the behaviour of others completing PDRPs. Crucially, these findings demonstrated how the PDRP process is role-modelled by participants and sets the tone for a

culture of completion. Any previous vicarious participation experience also strongly influences decision-making in the present. Although not always the most accurate or inspiring, these messages are some of the most powerful, even when a PDRP-friendly manager supports participation. This finding indicates the need for programme administrators to co-create a positive learning experience that adds value to nursing practice. It is essential to do so because the consequences of a poor experience endure between jobs and across careers.

Certainly, there are challenges in developing post-registration education that is sufficiently appealing. PDRPs could yet be that framework; the problems with it as a CPD framework are not insurmountable. However, to realise the practical benefits and to impact patient care, the competing perspectives of stakeholders need to be realigned. It is insufficient that a programme to support nurses' professional development is not seen to focus on their ability to improve patient outcomes rather, it highlights regulatory compliance and financial reward. There are other avenues through which continuing competence can be regulated and financial reward attributed to expert practice. In times where health dollars are scarce and health indices are by no means equitable, that PDRPs are fit for their educational purpose over any other purpose is an imperative.

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COLLABORATION ENHANCES COMMUNITY WELLBEING: A COMMUNITY DEVELOPMENT RESEARCH FRAMEWORK

Jean Ross, Samuel Mann and Keith Whiddon

INTRODUCTION

This paper describes a collaborative application of the Community Health Assessment Sustainability Education (CHASE) model (Ross, Crawley & Mahoney, 2017) to rural community development. The rural population nationally and internationally accounts for almost half of the total global population and these communities are confronted with reduced access to healthcare which contributes to increased health disparities (Couper et al., 2015; Hogarth & Rapata-Hanning, 2015). Nurses play a critical role in reducing these disparities around the globe with limited models to guide their practice (Ross & Crawley, 2018; Doolan-Noble, 2019). While nurses are positioned to navigate the holistic landscapes of health that integrate the socio-political, cultural, sustainable, economic and environmental aspects related to the uniqueness of rural communities they, require models to guide their practice. The CHASE model is one such model that guides practice however, we are aware one such model does not fit all communities therefore, the purpose of this research is to revise how this model is used and adapted for ongoing and future application.

The purpose of this paper is to demonstrate the value of collaboration and contribute to the ongoing debate about collaboration, health, community partnership and sustainability. This is part of a larger research project and we use the framework of this to structure this paper (Figure 1). The collaborative approach is illustrated with the example of a case study connected to the rural community of Bishop's Castle, Shropshire, England, UK. This community project was conducted in February 2020 (pre COVID-19) in collaboration with student nurse learners from New Zealand (NZ), supervised by the first author in partnership with the third author, who is a resident of this community and is the Chair of the Bishop's Castle Community Partnership. The core focus of this project was to identify and improve the health needs of the rural population of Bishop's Castle in collaboration with local community development practitioners (all members of the community), educators and researchers. We bring together these elements associated with the practice of community research by providing a discussion and practical guidance on the use of the CHASE model in learning and teaching.

COLLABORATIVE COMMUNITY RESEARCH FRAMEWORK

The Bishop's Castle collaboration is aligned with the global community development research project titled *Globalising the teaching and learning CHASE model to enhance nursing education: A national and international comparative systematic participatory data analysis*, we are currently progressing. This global research project is based on a research framework of six separate but interlinking elements, presented diagrammatically in this paper in Figure 1 which highlights how these elements (emphasised by six shades of blue) are comprised in this research project, stressing the collaborative relationships between and with community, education, research, co-design, evaluation and the ongoing and future collaborations within the local to global contexts. The image of the globe in Figure 1 provides a central focus to this framework, representing collaborative relationships expressed by the numerous hands, placed around the global connecting with the six distinct elements of the Community Development Research Framework. These elements are introduced and exemplified as a component of this

case study. We bring together these elements associated with the practice of community research by providing a discussion and practical guidance on the use of the Community Health Assessment Sustainability Education (CHASE) (Ross, Crawley & Mahoney, 2017) model in learning and teaching (led by the second author). This research is a unique partnership between local NZ providers aligned with education, health and research; international regions and organisations, and international participating Schools of Nursing and communities. Ongoing collaborative relationships are being developed and for 2021 this project has extended an invitation and will be working in partnership with Global Engagement and the College of Creative Practice and Enterprise both situated at Otago Polytechnic, Dunedin, NZ and are engaged with the Design for Social Innovation and Sustainability Lab (DESIS Lab) an international co-design collaborative practice enterprise illustrated in Figure 1 and further discussed in the following sections representative within this framework.
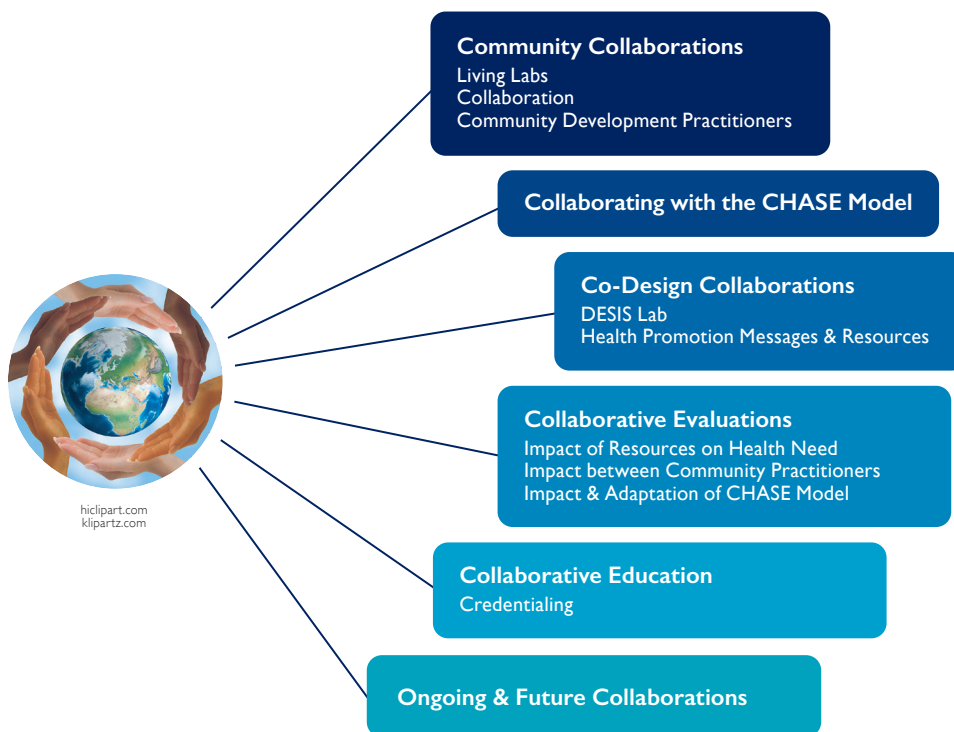
Figure 1: Community Development Research Framework. Source: Authors

CASE STUDY

Nurses act as community development practitioners (International Association for Community Development, 2018) to improve health outcomes in partnership with community stakeholders. It is therefore imperative student nurse learners experience community development work, as part of their primary health care clinical placements. Through the School of Nursing, Otago Polytechnic, Dunedin, NZ these learners have engaged with an education and research team, who profiled the rural English town of Bishop's Castle, Shropshire, UK and worked in collaboration with members of this community, with the aim to identify and reduce health disparities. Further elaboration of this case study including the student's community development research is published in this Journal (Restieaux et al., 2020) providing an in-depth review of the health needs identified and the outcomes of the research project.

Community Collaborations – the first section of the framework

Living Labs

Living labs are spaces where educational, research and health care institutions partner or in other words collaborate at the macro level to enable empowerment of the identified community otherwise considered the case study (Bergvall-Kaeborn, et al., n. d.). This is the level at which the local, national and global political dynamics related to policy, power and influence, are acknowledged and taken into consideration. While at the micro level activities are undertaken to highlight the community assets, deficits and capabilities, with a view to harnessing innovation and empowerment.

Collaboration

Collaboration involves groups of individuals working together on a project. All individuals involved in this project are partners and they have shared in the workload. Sharing the work includes clear insights, purpose, ideas and process to achieve a common objective and create new understandings and visions (Gilbert, 2016). Collaboration between all the engaged participants are referred to in this paper as community development practitioners.

Community Development Practitioners

Community development practitioner is an empowering phrase to classify all members of the community project whether in a paid or un-paid capacity (International Association for Community Development, 2018). Core community development values guide and underpin their practice including commitment and dedication to partner together with respect of different ideas and cultures; being patient and mindful of responsive communication while maintaining ethical practice with the aim to improve health status through change, empowerment and education. For the purposes of this case study an ethical application and approval had been sought and accepted from the School of Nursing Ethics Committee, Otago Polytechnic, Dunedin, NZ.

Collaborating with the CHASE model – the second element of the framework

The CHASE model is the research method engaged with to generate primary and secondary data that applies community development values with the aim to empower communities and their local organisations to sustain and improve health care and comprises six phases. This model comprises six phases. Engaging with the CHASE model (Ross, et al., 2017) provides community development practitioners, in this case study the student nurse learners, a method to profile the community, apply a needs assessment, identify health needs and develop resources (as a co-design collaborative team) with the purpose to improve sustainable health care and reduce health disparities. This model guides community development practitioners to view health from a sustainable and population-based approach to build effective and empowering relationships and consider the unique aspects and attributes of a community.

Co-Design Collaborations – the third element of the framework

DESIS Lab

DESIS Lab is the platform for the Design for Social Innovation and Sustainability Lab, relating to an action research laboratory. DESIS Lab is a collaborative effort connecting 'strategic and service design, management, and social theory, applying interdisciplinary expertise in problem setting and problem solving to sustainable practices and social innovation' (Parsons DESIS Lab, n.d., n. p.). Sustainability is the focal point in which innovative design-led practices work collaboratively within the local and global contexts (Parsons DESIS Lab, n.d.).

Health Promotion Messages and Resources

Health promotion messages and resources were developed which harnessed and included local members of the core community team who engaged and collaborated with the student nurse learners through the ongoing provision of these resources. They have built up an ongoing and lasting local response to new developments in the community through availability of producing resources. For example, local vegetable boxes including the resources created by the learners are now included with the food distributed by the local food bank and include a fridge magnet and coaster, delivering consistent education on the benefits of a community garden, to improve health and healthy living. Also continuing with community meetings and maintaining ongoing relationships with the nurse learners and the education institution, demonstrating ongoing collaborative relationships.

Collaborative Evaluations – the fourth element of the framework

After completion of the community development research project phases one-five of the CHASE model an impact research evaluation (phase six of the CHASE model) begins the process of investigating the outcomes of the project:

Impact of the resources on the identified health needs

The identified community development practitioners and recipients of the health promotion messages and resources were invited to evaluate if there had been any noticeable improvement of the identified population's health need. The community response to the project findings was overwhelmingly positive. However, COVID-19 lockdown occurred before the resources developed by the learners could be implemented, so much is work in progress. Saying that, the pandemic has brought new opportunities and the lessons learned though participating in the CHASE model will help to shape the community's post COVID-19 recovery plan. Identifying the community's health needs through this project is the first step in lobbying for improved support. These evaluations provide an opportunity to gather themes related to the identified health needs, resources developed and the utilisation these have had on the reduction of health disparities and the improvement of one or more of the United Nations 17 Sustainable Development Goals. (Sustainable Development Goals, n.d.).

Impact between the community development practitioners

All the community development practitioners expressed the project as being an incredible experience. The members of the Bishop's Castle community were warm and inviting, extremely helpful and welcoming to the student nurse learners. The student nurse learners learnt so much about a different culture, while having the privilege to partner with the community via a virtual platform involving zoom, email and photo image to collaborate with the local community members and stakeholders (a new approach in terms of research for nurse learners, it has been an important learning and insight into community health development in which student nurse learners grew in their knowledge).

Impact and adaptation of the CHASE model

The CHASE model is recognised internationally as a valid tool and worthy of adapting to meet local and global individual community needs. This model has enhanced student nurse learners' collaborative relationships in the global landscape and further contributed to inform the nursing curricula, teaching and learning pedagogy nationally and internationally which encourages global diversity and invites multiple perspectives to improve decision making and progress on issues that matter to rural nurses and rural communities around the globe.

Collaborative Education – the fifth element of the framework

Further engagement with Otago Polytechnic Credentialing in relation to Practice in Sustainable Development Goals: endorsed in Good Health and Wellbeing, Zero Hunger, Quality Education; Sustainable Cities and Communities, No Poverty and Partnerships of the Goals – as an example. By completing phase one-five of the CHASE model (the community research project), each student will be granted their capabilities micro-credentials (known as EduBits) and SDG EduBits – as a package/certificate. Micro-credentials acknowledge the achievement of a defined set of skills and knowledge (New Zealand Qualifications Authority, n.d.).

Ongoing & Future Collaborations – the sixth element of the framework

An International Community Development Symposium hosted in 2022 by Otago Polytechnic will bring together all of the international fellows associated with this research project to engage in a virtual symposium and establish a Global Centre for Community Sustainable Resilience which could work collaboratively with the DESIS Lab. In addition, we are compiling a book/virtual exhibition to capture our international community work related to the adapted CHASE model, data analysis, and impact assessment evaluations and engagement with the United Nations 17 Sustainable Development Goals (Sustainable Development Goals, n.d.).

CONCLUDING COMMENTS

This paper has described the importance of the application of engaging with and adapting the CHASE model (Ross, et al., 2017) for rural community development, captured in a research process. This process illustrated in Figure 1 the Community Development Research Framework draws attention to a holistic landscape for community health, with the example of a case study connected to the rural community of Bishop's Castle, Shropshire, England, UK. The research framework integrates six elements comprised in this research project, stressing the collaborative

relationships (the first element of this research framework) between and with community, education, research, co-design, evaluation and the ongoing and future collaborations within the local to global contexts.

The CHASE model is one such model that guides nurses' practice (the second element of this research framework) while raising student nurse learners' awareness of community development in healthcare contexts and demonstrating this work can impact positively, on health outcomes and reduce disparity (the third and fourth elements of this research framework). Equally the nurse learners engage with the UN 17 Sustainable Development Goals to aid community resilience as collegial international multidisciplinary engagements, as their findings are disseminated (the fifth element of this research framework). Correspondingly, it is the purpose of this research to revise how the CHASE model is used and adapted for ongoing and future application and engagement in local to global contexts (the fourth and sixth elements of this research framework).

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PROFIT AND STAFF WELLNESS: CAN WE HAVE BOTH IN VETERINARY PRACTICE IN NEW ZEALAND?

Francesca Brown

INTRODUCTION

Veterinary practice wellness is under the spotlight, both in terms of financial wellbeing and the well-being of the staff. In a rapidly changing world, clients now value their animals more, and know and expect more from their veterinary practices, but they are not always willing to pay for it. At the same time, staff in veterinary practices recognise it is no longer personally sustainable or indeed best for their clients and patients, to sacrifice their own well-being for their chosen career.

Ricketts and Marchant (2017) argue that a happy practice is likely to be a successful one. Unhappy and/or stressed employees are unlikely to be able to provide the best service for clients and their patients, and this leads to poor client experience which will reduce the likelihood of them returning to the practice. In addition, it may lead to suboptimal animal care leading to compromised animal welfare. Ultimately the business suffers. Clients who have amazing experiences come back more frequently and spend more money with the practice.

The well-being of veterinarians is repeatedly reported as being lower than is acceptable (Weston, 2011; McErlean, 2013; Nolen, 2018; Gardner & Rasmussen, 2018). The literature related to the well-being of veterinary support staff (all other staff in the practice except veterinarians) is very limited but anecdotal evidence suggests that there are similar challenges for veterinary support staff too. This situation is very concerning for the industry.

Regardless of whether a business's key driver is to do the right thing (exceed compliance) or compliance driven (meet the minimum standards set by law), prioritising staff wellness is a legal requirement. The New Zealand Health and Safety at Work (HSW) Act 2015 requires attention to wellness of the people in the workplace. Section 36 states that the person conducting a business or undertaking (or 'PCBU') has a primary duty of care and employee well-being is part of that. Issues that affect well-being, for example work related stress, compassion fatigue and burnout, must be included in a business health and safety register and have a management plan for this. There is a risk of liability to the PCBU if burnout or any illness is diagnosed officially, and the cause is documented by a medical professional as being work related.

This study identifies the similarities of three New Zealand veterinary practices which have focussed on and achieved excellent staff well-being whilst meeting or exceeding business profit goals and achieved high client satisfaction. They also show this can be achieved without yet solving the industry wide issue of low remuneration. However, the healthy practices described here potentially provide a platform for beginning to address this.

METHODOLOGY AND FINDINGS

The overall methodology used for this study is defined as action research. A mixed method approach was used to collect data, including interviews, surveys, and focus groups.

This mixed methodology was chosen to obtain as much information as possible for selection of the right practices as case studies, and to show congruence between the employer, employees, and client interpretations of this business. Ethical approval was granted by Otago Polytechnic Ethics Committee in 2019 Number 808.

Table 1 summarises the research phases in the order that they were carried out. Each phase led into the next phase. Next, the details of each phase are provided, key findings presented and links to the next phase described.

Phase	Research Method	Brief Details	Practice Time Commitment	Practice Benefits	Analysis
1	Identify Potential Veterinary Practices	Advertising designed to reach a wide spectrum of New Zealand veterinary practices.	1-15 mins – email and/or short phone call.	Opportunity to help improve the wider profession's commitment to staff well-being and gain an insight into their own progress.	Review of the makeup of the self-nominated practices.
2	Employer Interviews	Background information about the practice and its drivers, and a self-assessment of where the practice currently is with regards to well-being, sustainable practices and profit.	1-1.5 hours for interview plus time to approve summary of information collected (approx. 30 mins).	Opportunity to help improve the wider profession's commitment to staff well-being.	Baseline data including practice self-assessment for comparison.
3	Work Environment Survey (WES)	Matching the employer information with responses of staff in terms of their well-being and what the practice is doing that is working for them.	15 minutes per employee	Practice received a full report of all data collected with suggestions for next steps.	Survey data analysis – comparison between practices and against employer interview data. Focus groups selected.
4	Focus Groups	Face to face with staff from selected case studies to further develop an understanding of why the practice is successful.	1-1.5 hours per practice	A time to connect and celebrate success. A summary of information collected, opportunity to share thoughts and ideas.	Thematic analysis.
5	Client Survey	To close the loop by confirming client satisfaction.	Max 1 hour to circulate to clients. 2 mins for a client to complete.	Data was anonymously collated and made available to practice for their own use.	Survey data and online reviews analysis.

6	COVID-19 Resilience Questions	As COVID-19 was significantly affecting business just after the initial data was collected – additional ethics approval was obtained to ask a set of general. questions seeking employer insights (thematic analysis).	15 mins-1 hour from employer/ practice manager of case studies to record experiences.	Contributing to industry resilience by sharing their insights.	Thematic analysis.

Table 1. Summary of the research phases.

Phase 1 – Identification of Veterinary Practices to Participate

Following advertising in a key New Zealand veterinary publication and on relevant social media pages requesting practices who felt they were performing well in both staff well-being and financial success to participate in this research. Table 2 outlines the practices who volunteered to participate and their level of participation throughout the study. No corporate practices came forward initially. Case Study F became a case study following direct contact with the major corporate veterinary practice owners.

	Location	Practice type	Ownership	Level of Participation
A	Large city	Companion animal practice	Privately owned by 2 female veterinarians	Participated in employer interview and work environment survey, then selected as a case study. Participated in focus group, client survey and additional questions regarding COVID-19.
B	Small city	Companion animal practice	Privately owned by 1 female veterinarian and 1 female non veterinarian practice manager	
C	Medium sized urban town	Large mixed practice (majority companion)	Privately owned by 2 male veterinarians	
D	Rural service town	Large mixed practice (majority dairy)	Club practice	Participated in employer interview and work environment survey. Not selected as a case study.
E	Satellite town of large city	Small but fast-growing companion animal practice	Privately owned by 1 female veterinarian and her non-veterinarian husband	Participated in employer interview and work environment survey. Not selected as a case study.
F	Large city	Companion animal practice	Corporately owned	Agreed to participate after direct contact. Participated in employer interview and work environment survey. Not selected as a case study.
G	Large city	Companion animal referral practice	Privately owned by a male and a female veterinarian	Participated in employer interview but were unable to engage participation of employees in the work environment survey so withdrew from study.
H	Large city	Companion animal practice	Privately owned by 2 female veterinarians	Initially agreed to participate but pulled out before the employer interview due to lack of time available to commit to participation.

Table 2. Summary of the participation of the eight practices who came forward.
(Note that these are not recorded in order of contact, but were reordered for ease of data presentation moving forward)

Phase 2 – Employer Interview

The employer or practice manager from each of the participating practices listed in Table 2 were interviewed, except Case Study H which withdrew before an interview was arranged due to lack of time availability to commit to the study.

The interview questions (and those used later in the work environment survey) were developed from literature that outlines the aspects of success in terms of staff well-being, and related to:

- vision and values
- work hours and expectations
- staff leave and benefits
- health and safety
- performance reviews, professional development, and career pathways
- communication
- well-being
- position description and utilisation
- staff ratios
- sustainable practice
- leadership.

The practices all spoke about the veterinary team which was used as an inclusive term. They avoided "us" (the veterinarians) and "them" (the support staff) language. Two of the practices interviewed (A and B) started with a clear vision of staff and client well-being central to their ethos. The other practices, albeit in different ways, have a focus on wanting the practice to be a great place to come and work.

As part of the employer interview (undertaken in 2019), the practice owners or manager were asked to give an assessment of the practice's performance in terms of social, environmental, and financial well-being. Table 3 summarises this and shows that they are all paying attention to staff well-being and were meeting business financial goals at the time of the interview, which was required to continue to the next stage of data collection.

Owners ratings	Rating explanation	A	B	C	D	E	F
Current practice well-being	0-5 (5 is excellent)	4	4**	Not recorded	Not recorded	Not recorded	4
Attention to staff well-being as a practice	0-5 (5 is a lot)	5	6***	4	4	4	4
Engagement with community	0-5 (5 is excelling)	3*	5	5	5	4.5^	3
Attention to improving environmental sustainability	0-5 (5 is excelling)	4	5	3	2	4	4^^^
In terms of business financial success, turnover level	0-5 (3 is at expectations, 5 is well over)	4	4	4	4	4	4
In terms of business financial success, profit margins	0-5 (3 is at expectations, 5 is well over)	3	4	4	3****	4^^	5

Table 3. Employer/Practice Manager interviews of case studies A–F:
Assessment of social, environmental and financial well-being

* Part of the community but not doing a lot of work with the community.

** Owner noted that it would have been 5/5 if not for recent challenging staff member, she noted practice was still recovering.

*** 6 is as owner stated.

**** Not for profit organisation, any profit paid out in member discounts and staff bonuses.

^ Schools, preschools – come and visit, do bit of funding for Plunket and donations etc.

^^ Growth phase of practice and growth exceeding expectations.

^^^ Work in progress, keen to focus on this.

In addition to the data in Table 3, additional points from the employer interviews that that are important to draw attention to are:

- Practices have a focus on staff well-being and wanting to continue to improve.
- They identified themselves as learning practices and as such expected staff to be learning all the time and developing their skills. They also universally welcome students into their practices and found them a valuable addition to the practice.
- Low staff turnover is also a feature across all but one of the practices, and where there was turnover it usually related to maternity leave and staff heading on their "OEs" (overseas experiences).

Phase 3 – Work Environment Survey (WES)

The WES was developed by the researcher, using the same themes as those in the employer interview and set up using Qualtrics. The WES was tested on industry colleagues prior to being utilised in this study. This survey helped to show if there was congruence between what the employer interview revealed and what the staff feeling was.

Table 4 shows the participation rates in the WES for each practice. These were very high response rates except for case study D. Case study G withdrew when partway through collecting WES data due to lack of staff engagement.

	A	B	C	D	E	F
Number of respondents completing survey	17	11	20	21	6	8
Total number of staff employed	19	13	20	45	6	8
Percentage response	90	85	100	47	100	100

Table 4. Number of respondents to WES.

Based on the data collected from the WES, three case studies were chosen. These practices were chosen based on overall ranking as shown in Tables 5.1 to 5.4. The tables do not reflect the actual ratings returned, so in many cases the data was strong across the board, but the practice ranked 1, had the highest percentage responses in the combined agree (5.1 and 5.2) or in strongly agree (5.3 and 5.4).

ALL AGREE DATA	Ranking for all agree data comparative to other case studies					
WES SECTION	A	B	C	D	E	F
Vision and Values	2	1	3	4	6	5
Work hours and expectations	2	1	4	3	5	6
Staff leave and benefits	4	1	5	2	3	6
Health and Safety	5	1	2	3	4	6
Performance reviews, professional development and career pathways	1=	1=	2	3	5	4

Communication	3	1	1	2	1	1
Well-being	4	1	2	5	3	6
Position description and utilisation	2	1	1	3	5	1
Staff ratios	2	1	2	4	1	6
Sustainable practices	2	1	6	4	6	5

Table 5.1. Rankings from collated combined agree data from the WES.

CUMULATIVE TOTAL	A	B	C	D	E	F
Number of rank 1	1	10	2	0	2	2
Number of rank 1 and 2	6	10	6	2	2	2
Number of rank 1,2 and 3	7	10	7	6	4	2
Number of rank 1,2,3 and 4	9	10	8	9	5	3
Number of rank 1,2,3,4 and 5	10	10	9	10	8	5
Number of rank 1,2,3,4,5 and 6	10	10	10	10	10	10

Table 5.2. Cumulated total of the rankings for the combined agree data.

	Total % scores for each WES section for each case study					
WES SECTION	A	B	C	D	E	F
Vision and Values	2	1	3	4	6	5
Work hours and expectations	3	2	6	4	5	1
Staff leave and benefits	5	2	3	1	4	6
Health and Safety	4	2	3	1	5	6
Performance reviews, professional development and career pathways	1	5	2	3	6	4
Communication	3	2	4	6	5	1
Well-being	2	1	3	6	4	5
Position description and utilisation	4	1	2	5	1	3
Staff ratios	1	3	5	6	4	6
Sustainable practices	3	1	4	3	6	5

Table 5.3. Rankings from collated strongly agree data from the WES

CUMULATIVE TOTAL	A	B	C	D	E	F
Number of rank 1	2	4	0	2	1	2
Number of rank 1 and 2	4	8	2	0	1	2
Number of rank 1,2 and 3	7	9	6	4	1	3
Number of rank 1,2,3 and 4	9	10	8	6	3	4
Number of rank 1,2,3,4 and 5	10	10	9	7	7	7
Number of rank 1,2,3,4,5 and 6	10	10	10	10	10	10

Table 5.4. Cumulated total of the rankings for the strongly agree data.

Case studies A, B, C and D scored the highest rankings overall when considering the combined agree data. When considering the strongly agree data only, case studies A, B and C are at the top. These three practices also had high participation rates from staff ranging from 85 to 100 percent, whereas case study D had a participation rate of 47 percent. Case studies A, B and C were therefore selected as case studies. All three of these selected case studies were privately owned.

It is important to be clear that none of the selected case studies are examples of perfection, however they are examples of practices who are advanced in their journey of achieving staff well-being while still meeting their business goals.

Phase 4 – Focus Groups

Focus groups were carried out with case studies A, B and C. Guiding questions (Table 6) related to the WES feedback and specific industry issues were used to focus the discussions but they were set out to be able to allow free flow of conversation and therefore the direction of the conversation varied at each focus group.

Specific practice WES feedback guiding questions	Was the summary accurate?
	What else would you add to it?
	Would you take anything away?
	What are the key areas that make this practice a great place to work?
	What are the key changes needed to further improve it?
	How should change to be implemented?
Industry wide discussions	Leadership and its contribution to the workplace success
	Veterinary Industry pay rates
	Charging for services
	Attitudes to discounting and undervaluing services
	Attitudes to having students in the practice

Table 6. Guiding – Focus group guiding questions.

The focus groups revealed three very cohesive but very different teams, however there were some core similarities amongst them which built on the WES findings.

Leadership was an essential ingredient to success for each of these focus groups:

- lead by example – actively live by the clear vison and values, they are walking the talk
- favour collaborative leadership styles
- inclusive leaders that value the opinions of their team and include staff in decision making both day to day and strategically and operate on a continuous improvement model
- they understand that collaborative styles improve uptake of decisions and help employer understand employee values and thus engage them
- the leaders are still very much part of the team – it is not an 'us and them' scenario
- they are genuinely kind and caring.

In addition to overall leadership, these similarities were also noted during the focus groups:

- the way the teams interacted showed strong connected teams
- willingness to share what they were doing around staff well-being to help the profession
- the teams all focussed on improvement – with discussions often turning to this is what we have already done to improve a result in the WES
- they felt safe in their workplace, able to speak up and included in future decision making
- they check in on each other and that it is ok for a team member to acknowledge that they are having a bad day and to talk about it
- they divorce clients
- they provide cover when staff are on leave and insist on breaks during the workday
- their positive attitudes to welcoming students into their workplaces
- they have social and/or community events as a team which are important to the teams in connecting and keeping connected
- they have rigorous employment procedures and actively employ for team fit, generally strengthened by past experiences of a previous wrong employment decision has created challenges
- they all believed the private ownership structure was an important ingredient in their success and had stories of corporate ownership falling short.

Phase 5 – Client Satisfaction

To show that the clients at these practices were also happy, clients were surveyed. All three case studies had strongly positive data with 86 to 95 percent satisfied. In addition, an analysis of Facebook and Google reviews was completed which showed even stronger results.

The main reasons stated for high satisfaction were:

- level of service provision
- the staff
- care compassion and kindness to them and their pets
- knowledge
- professional service.

Phase 6 – COVID-19 Resilience

The timing of the COVID-19 outbreak, and subsequent lockdown occurring just as data collection was concluding, provided an opportunity for the researcher to look at the resilience in these practices.

While all the practices had different experiences, the following themes emerged:

1. All the practices broke into two or three separate teams for the Level 4 Lockdown and just got on with what was needed. How each case study managed these teams varied but a key was maintenance of communication between the teams.
2. Clear communication to clients was maintained so they knew what to expect and what was expected of them. This was believed to be a key focus and most clients responded well.
3. Each case study had variable drops in income (due to only being allowed to undertake emergency work during Level 4) and variable utilisation of the wage subsidy but there were no redundancies (and this was very important to the case studies to avoid this if at all possible). A very short-term wage reduction for one practice was instigated. Each practice has experienced some bounce back post lockdown as the practices catch up on deferred non-essential services.
4. While acknowledging it has been hard, all the case studies were positive about how the team and business managed during the pandemic and the future. The practices all felt their teams really stepped up during the pandemic and the benefits of this are being felt in the post-lockdown phase.

These were already strong, well-functioning teams, and this appears to have stood them in good stead through the pandemic and for moving forward. All the case studies are going to continue with some of the things they implemented during lock down.

DISCUSSION

This study showcases examples of three New Zealand veterinary practices who are demonstrating high levels of staff well-being while meeting or exceeding their business goals and scoring high levels of customer satisfaction.

The four key enablers, documented by MacLeod and Clarke (2009) relating to strong a strategic narrative, quality leadership, employee voice and organisational integrity have run true throughout this study. MacLeod and Clarke (2009) also show a clear correlation between these enablers and improved business performance. Successful businesses are built up by having a clear vision – the why are we doing this (Sinek, 2017), setting clear values that the practice can live by, quality collaborative leadership and building the strong team that work together to succeed.

There are overarching themes seen in each case study, which are detailed below, are congruent with supporting literature, and can be used as a framework for success.

The Importance of the Vision and Values

It is commonplace for businesses to have a vision and values; however, many are not actually central to the business day to day in conversation and decision making. All the practices at interview stage had a vision and values but for the three practices that were selected as the case studies, they were clearer to staff and lived in everyday conversation by everyone on the team.

Leadership

In each focus group, the staff acknowledged how important the leadership was to the practice being a great place to work. The key themes of quality leadership in these practices are highlighted in the findings section.

Effective leadership from the practice manager/owner, as described widely in the literature (Tier, 2006; Sinek, 2017; Guesgen, 2018), is the key to getting a shift in the industry required to improve the wellness of staff, longevity in clinical practice, job satisfaction and business outcomes, and further supports the findings in this study.

All the case studies report low staff turnover. Gallup research (Gallup, 2008) has linked 75 percent of staff turnover to "bad bosses" which affects staff well-being. Some turnover in any business is expected as people's circumstances change, however higher rates of turnover are a concern for any business. The presence of low staff turnover is an important measure of staff well-being and good leadership.

Despite practice ownership still being majority male in New Zealand with majority female staff, nearly all the practices that volunteered to be case studies in this study had female leadership. This raises the question that in our changing times where we need to change the focus to staff well-being and relationship-centred care of clients and animals, whether that is a style of leadership that comes more naturally to females (Eagly & Carli, 2003). That is not to say males cannot lead effective healthy organisations where staff are well looked after, but that the natural tendency to lead collaboratively with a focus on staff well-being is more common and accepted in female leaders.

Strong Teams

There is no business without a strong team, a team that is working together towards the same goal. If we reverse Lencioni's Five Dysfunctions of a Team (Lencioni, 2010) this gives you the five functions of a team:

- trust
- safe conflict
- commitment
- accountability
- attention to results.

You must have trust, before you can have any of the others. Brown (2019) better describes what trust is using the word "BRAVING" (Boundaries, Reliability, Accountability, Vault, Integrity, Non-judgement, Generosity).

Case studies A, B and C are all examples of strong functional teams. The teams have respect and trust for each other, are collectively involved in sharing challenges and solutions, and in formal decision making. The staff in these teams feel safe to speak up when they do not feel something is right.

All the case studies have rigorous employment procedures and actively employ for team fit. The wrong employment decision can have devastating effects on a team. Literature supports the importance of selecting the right person for the team (Grant, 2016).

There is however a difference between employing for team fit and "sameness" (Shellenbarger, 2019). This is a potential risk enhanced by the fact this is an industry that still lacks diversity. Employment decisions need to be made not only on how the person will fit into the team and also fill both technical and but perhaps, more importantly, working style gaps, for example, the team might be strong in ideas but weak in turning the ideas into reality, so selecting for someone with a strength in driving forward ideas.

Personnel Well-being

As well as financial key performance indicators (KPIs), case studies A, B and C have well-being KPIs. For case studies A and B, the practices were founded with these in place. For case study C, they are at the beginning of the journey that has these KPIs front and centre.

Wellness should not be treated in isolation of the business vision and values, but if it is managed central to these, staff well-being leads to a reduced risk of business failure (Rickets & Marchant, 2017). Although first proposed in 1965, the Herzberg Hygiene theory (Kuijk, 2019) has an application here. This theory explains the factors that motivate and the demotivate staff. The concept is to ensure that the demotivating factors are attended to, and the motivation factors are enhanced.

Demotivating factors relate to working conditions, team relationships, practice policies and procedures, leadership quality, and pay. Many of the themes identified in this study show that these demotivating factors have been attended to including quality leadership, strong teams, cover for staff when they are on leave, making time for breaks (and making it not negotiable), divorcing clients, ensuring clear job descriptions and quality performance review processes (Phelan, 2009). The exception to this is the low pay.

In terms of keeping staff motivated, according to Herzberg the factors include achievement, recognition, responsibility, the actual job, opportunity for advancement and personal growth. In the veterinary industry, the job itself has a strong attraction for people – people that work in the industry really care about animals and their welfare, so the job itself is a very strong motivator.

Many of the successes identified in this study show these motivating factors have been addressed well in these practices and include placing high value on support staff, creating roles that meet needs (for example, more part-time roles or introducing a kennel hand), 'shout outs' to staff that go above and beyond, a plan to link performance reviews to professional development plans to develop staff, and allowing them to meet their career goals. If the demotivating factors are dealt with, the motivating factors will keep people in your business.

A complex industry issue that has not yet been resolved in any of the case studies is wages/salary levels which were largely reported to be not meeting needs. Kimber and Ratcliffe (2017) described the three 'E's of occupational well-being (engagement, exchange, exhaustion) in terms of veterinary nurses. This study investigates why individuals stay in veterinary nursing, and how they stay and manage to thrive in when operating in high-demand, high-strain, dangerous and underpaid roles. They conclude that improving coping and communication strategies may encourage positive workplace behaviours and occupational commitment as well as reducing burnout and intentions to quit. This is congruent with discussions with the case studies where the veterinary nurses commented on the quality of the workplace contributing to them staying in the role despite low pay.

Learning Focus

The three cases studies all described themselves as learning practices. This related not only to their staff and the learning journey they are on, but to welcoming in students – both veterinary and veterinary nursing students to obtain practical hands-on experience. Two of the case studies had students at their practice at the time of the focus group and invited them to participate. They were able to report on their experiences at the case studies and compare this with other experiences they have had. The clear message was that these practices were excellent places for student learning and experience. They felt welcomed as part of the team, and the practices provided a nurturing environment where learning could occur. The staff at all of the case studies stated how much they liked to have students as they love helping them learn, but also, they learn from them.

Experience in the education sector is that access to placements and experiences with placements is very mixed – from practices that offer a great experience, practices that refuse students and practices that take them reluctantly and offer mediocre experiences at best.

This leads to the following suggestion: if a practice culture is healthy and therefore staff are happy, welcoming students is part of that culture and if the culture is not so healthy then it is harder to make space for students because staff are so busy just surviving. Applying that to Maslow's hierarchy of needs, in unwell practices staff needs are not being met, so staff are operating at the levels of physiological and safety needs and there is no room for students. Once a practice begins to operate further up Maslow's hierarchy, the practice is in a space where staff can welcome learners, rather than struggling for their own survival.

Health and Safety

Earlier it was described that well-being is a part of health and safety and is therefore, a priority. The wellness aspect is in addition to the more obvious aspects of safety such as equipment, access to personal protective equipment. The selected case studies operate in a space where all aspects of health and safety are valued – both physical and mental.

In the time that lapsed between completion of the WES and the focus group, each case study had already worked on fixing any identified areas related to health and safety as a priority, even though they had high agreement scores in this area, suggesting a zero tolerance.

Some practices that the case studies have in common with regards to meeting the obligations of the HSW Act with regards to Section 36: Duty of Care included:

1. Actively divorcing clients – leadership take the stance that it is not ok for the client to treat my staff like that. The staff are valued more highly than the poorly behaving client.
2. Mental well-being is recognised as important and supported:
3. Encourage making space to breathe – it is to "take five" to gather yourself
4. Industry issues are acknowledged and talked about for example, compassion fatigue, burnout
5. Staff can access Employee Assistance Programmes
6. When reviewing things that have gone wrong, the case studies review the process not the person. Language is important – as a team, where did it break down, how do we avoid it next time.
7. Promote a culture of it being ok to report things/speak up. It is a legal requirement of the HSW Act to be able to speak up and not have any negative effects. The case studies try to create a culture that makes staff feel safe to do this.
8. Encourage (even enforce) breaks by creating a ritual to make it happen. These are a legal requirement but as an industry not something that is universally practised.

Resilience of the team

Resilience is the ability to recover quickly from difficulties. The COVID-19 pandemic has presented the perfect opportunity to test this. While there was no doubt that each of the case studies had challenges during the lockdown that followed the announcement of a worldwide pandemic, what was evident in reports from the practices is that the teams stepped up, navigated the challenges and have come through the lockdown period as stronger teams. This can likely be attributed to the fact that the teams were in a strong position heading into the pandemic, they have good leadership and collective decision-making ability. As a team, they navigated and solved or managed the challenges as they arose. While all these practices took varying degrees of a financial hit, they managed to retain all their staff and are positive about the future.

OPPORTUNITIES

The profession has an opportunity to become stronger together by forming communities of practice with other like-minded practices to help motivate and learn off each other to keep improving.

Another opportunity is for the profession to start measuring staff well-being annually and benchmarking this against other practices and discussing it in a community of practice to continue the improvement journey.

The leaders of the profession need to focus on developing collaborative leadership skills. By taking the team on the journey together, staff will thrive, the practice will thrive, and the dollars should look after themselves.

CHALLENGES THAT REMAIN

This study has highlighted several areas that need further research to help the industry with regards to improving staff wellness and business viability. These include research on the success of different practice ownership models, hours of practice opening including after-hours provision, support staff utilisation and ratios, staff salary/wages, invoicing, discounting, and client and veterinary industry perceptions of the cost of veterinary services.

CONCLUSION

The title of this paper posed the question "Profit and staff wellness – can we have both in veterinary practice in New Zealand?" The three cases studies clearly presented that the answer is yes. The law tells us it is essential that every employer must focus on wellness. It is likely the themes identified in this study that are congruent with literature, could be successfully transferred to any other business regardless of industry.

The key for each business in developing a staff well-being improvement plan, is to set up the framework to be successful in. This includes:

- attention to practice vision and values
- leadership training for success
- clear KPIs for well-being which are measured regularly to track improvements.

This will provide a strong framework for the team to work together collaboratively to achieve this. Connecting with businesses on a similar path to share experiences and learn of each other is likely to help with motivation and success on this journey.

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DESIGNING TOGETHER:
"VISION 2020: CO-DESIGN PROJECT"

Machiko Niimi, Mary Butler, Sarah Drummond, Kelechi Ogbuehi and Karen Parker

INTRODUCTION

This paper aims to contribute to the growing body of evidence showing that design can contribute positively to healthcare experiences and to improve health outcomes (Jones, 2013). In particular, we unpack our experience of a 'design for health' co-design project carried out between different institutions: Otago Polytechnic, the University of Otago, and Tahuna Intermediate School in Dunedin New Zealand; and between the different kinds of knowledge held by occupational therapy, optometry, design, students/pupils, teachers/lecturers/professors, and parents.

The concept of 'design for health' has been foregrounded as something that requires a co-design approach. Design for health aims to enhance health outcomes and healthcare experiences by improving products, services and systems through design-led, human-centred approaches (Bill, Reay, & Collier, 2015). In particular, it aims to:

> ….better position users' 'voice' in healthcare design and delivery; develop ethical frameworks to more effectively support healthcare design; develop and implement strategies to integrate design-led methodologies, methods and processes into healthcare products, services and experiences….and to use design-led frameworks to better support learning and transformation within healthcare organisation''
> (Bill et al., 2015, p. 3)

Design for health starts with a group and not just an individual (Sanders & Stapparsb, 2008). Gone are the days of the lonesome design hero. In recent years, the product design process has shifted from individuals to teams, and from beautifying objects to putting end-users in the centre. Further steps have also been taken where rather than designing for the user, the importance of designing with the users and specialists is being emphasised. This way of thinking and collaborative design process has been referred to as 'co-design'. Opinions vary around who should be involved, and to what degree, in a co-design team. However, co-design aims to involve both trained designers and non-designers equally in the creative process (Sanders & Stapparsb, 2008).

VISION 20/20 CO-DESIGN PROJECT

The question we were working with at the start of this project was the following: how can we develop an effective vision screening system where school age children screen each other's vision? The concept of child-to-child vision screening was a novel idea that arose from an occupational therapy fieldwork placement. In the placement, two occupational therapy students took a vision screening toolkit into a secondary school context. They did this as a way of raising awareness of visual impairment and they organised the activity so that the children did their own screening. Following the success of this project, it was hypothesised that this process might be a useful way of doing vision screening with children (Butler, 2019).

The hypothesis was developed in response to New Zealand's current vision screening system where children are falling through the cracks (Butler, Drummond, Niimi, Ogbuehi, & Parker, 2020). For a system to be effective in screening all children across New Zealand, the system needs to be simple, cost effective and reliable. Working towards embedding a vision module in the science curriculum, to enhance student's awareness of vision and then screening each other seemed to be an ideal answer to these issues. Ethical approval was granted by the Otago Polytechnic Research Ethics Committee in September 2019 Number 822.

The project team was expanded in 2019 to include a Professor of Ophthalmology/Optometry at the University of Otago, Occupational Therapy and Product Design senior students, the Principal Lecturer of Product Design, and the principal, teachers and pupils of Tahuna Normal Intermediate School (a public school attended by pupils aged from 11 to 13). The team was lucky enough to attract funding from the Participatory Science Platform, which has a philosophy of embedding science processes into citizen projects.

In 2019, a dedicated Occupational Therapy senior student took the project lead and worked extensively with the Product Design senior student and Tahuna Intermediate teachers and pupils to develop a number of vision screening prototypes. The vision screening kit was developed with input from the Senior Optometry Lecturer. The kit consisted of a series flip chart and result recording booklet. The inclusion of the ophthalmology/optometry specialist on the co-design team was key to ongoing development of a clinically valid prototype. Each of the prototypes was tested with the school teachers and pupils for feedback and further iteration.

There was extensive dialogue in the weekly team meeting about how to record the results and to inform parents and guardians of children. At this point, we had results from all 270 children in Year 7. Ensuring follow-through of particularly the children with a failed screening became an obvious challenge.

By the end of 2019, the student pair, along with the lecturers, had visited the school seven times and had developed a dozen iterations of the vision screening kit. The students at the school had seen the iteration and improvements made over time. They commented favourably on their participation, and how they "enjoyed being heard and seeing improvement made so quickly in the next visit."

Some examples of the student feedback included: make the pages thicker, make it easier to navigate, make the instructions simpler, use colour coding for the results booklet and flipchart, work in groups of three instead of pairs. Of the 288 children who were tested, 24 needed to be referred to an optometrist. Of the 24 children who were referred, seven of them were identified as priority learners in the sense that there were below or well below other students in the areas of literacy and/or mathematics. All of these results, and the enthusiasm of the children and teachers, encouraged the team to keep working towards developing workable solutions.

THE CO-DESIGN PROCESS

A design process usually begins with a divergent exploration process (British Design Council, n.d). In this research, the Occupational Therapy Professor and her students had a vast range of information gathered from a divergent exploration to understand four key areas.

1.   Vision screening is problematic in many countries (Burnett et al., 2018) and this frustration is echoed in the national vision screening process.

2.   An understanding of international precedents in various vision screening methods.

3.   Identification of a vision screening toolkit developed in the UK and produced by the Pocklington Trust (the Eyes Right Toolkit) to be used by laypeople with older adults. The Occupational Therapy team had also gained copyright permission to replicate this toolkit.

4.   The literature review indicated that the child-to-child vision screening approach was a genuinely novel approach.

The occupational therapists identified the idea of child-to-child vision screening in a seeming epiphany. However, in hindsight, this light-bulb-moment concept was actually a result of what is known as divergent research and design thinking. It arose from intensive research, working with the end users at the high school, and creative thinking in the previous project (Butler, 2019) and also various other settings.

Often, it seems that the co-design process involves a designer who comes on board to run workshops that sow rows of sticky notes with ideas about what else can be done. In this case, such a process would have been only to the benefit of the designers to get up to speed with the knowledge that the Occupational Therapists already had. Instead, it seemed more appropriate for the designers to listen to and respect the Occupational Therapist's prior experience and knowledge as a starting point. As a result, in the first few months of this project, the designer's role in this project was to develop tangible prototypes through communication design and embedding various areas of importance for all parties involved.

In co-design, the premise is that everyone is creative. The development of the Vision 2020 project highlighted how educators could also be effective collaborators with their students in project-based learning. There was a sense of equality and generosity in the team that could recognise the innovative nature of the students' idea about child-to-child vision screening. One of the team later reflected:

> *Great ideas don't come from professors and teachers. They come from the people (and students) that we work with. And it's actually a joy when you can inspire students to be confident enough to come up with ideas like this that can morph into something bigger.*

This project is a fine example of Occupational Therapists' creativity at work.

THE VALUE OF PROTOTYPING

By the end of 2019, the students involved in this project had completed the development of the vision screening kit for the school. The kit was created to a high standard, and it was a beautiful product. However, we gradually became aware that this prototype was filling purposes that we had not expected. It was acting as an object that enabled thinking about the significant problems associated with vision screening. The development of the prototype prompted ever more in-depth conversations. It rapidly created a situation where the team could genuinely include school pupils and teachers on a level platform.

The development of the prototype moved the whole team to a place where it became possible to articulate the values underpinning the project. These values were about wanting to meet the vision health needs of children. The student occupational therapist put this into words when she expressed her commitment to working with children:

> I've just got really passionate about wanting to help all these kids as much as possible and enthusiastic about learning to help with their vision. I'd love to stay involved and I hope that the project keeps carrying on as long as possible.

In this case, the use of a prototype appeared to act as a participant in a play that 'brings together user and expert mindsets and helps move healthcare design from what is to what could be' (Bill et al., 2015). The prototype in this project was incredibly effective as an object that helped to refine and clarify the values underpinning the project.

At one stage, the group started to tell stories about the different ways that we were learning to approach what we were doing. One story was about the three stonemasons who are asked what they are doing. The first stonemason says that "I'm chipping these stones to make my living"; the second stonemason says "I'm chipping these stones to be the best stonemason in the country"; and the third stonemason says "I'm chipping these stones to make a cathedral."

The story of the stonemasons described how the team felt united around a single issue. There was no longer a sense that representing our individual disciplines was the most important thing, and neither was there a sense that individual egos were important. Instead, there was a trust that everyone in the team was answerable to the same issue—which was ensuring that children received vision screening.

UNPACKING THE WICKED PROBLEM

At another level, the prototype toolkit acted as a type of 'Trojan horse' (MacDonald, 2013, cited in Bill et al., 2015). It smuggled a complexity of thinking into what had seemed like a simple goal.

As we worked through the various iterations of the prototype, we encountered problems. For example, we became aware that parents were not taking their children to the optometrist even when they got a clear message about the screening process. This difficulty with communication between home and school is something that teachers are already clearly familiar with:

> *Parents don't like to say, well actually it's lack of money or lack of time. Because if they say it's lack of time, then it looks like they don't actually care about their child. But then, we say "how come you haven't gone? You said there were no barriers." And then, they say "well we haven't got round to it, we haven't had time." So clearly, time is a barrier for them, and they are trying to save face when they are speaking with you. Trying to get an accurate picture is really hard (teacher).*

Further in-depth interviews with parents revealed numerous issues with the current system in ensuring that children get glasses when they need them. For example, parents have problems getting time off from work to take children to optometrists. They also have significant levels of mistrust of optometrists, partly based on less than happy experiences. It is also partly based on the difficulty understanding the business model of optometrists, which leads to every optometrist offering different things. There were cost issues and a lack of awareness of the subsidy available to community services cardholders. Parents were also aware that glasses are inconvenient and potentially stereotyping for the children.

Over time, the vision screening prototype began to help the team to map the user journey. The team met weekly, and the conversations that unfolded following each iteration of the design began to highlight the areas for improvement and uncovered the surface of what increasingly looked like a Wicked Problem (Buchannan, 1992).

Our current understanding is that the user journey (and barriers) for a child who needs glasses at age 11 looks something like this:

1. Vision Screening occurs once before school and once at age 11-12 in school.
2. Children absent on the screening day at school will miss out.
3. Some schools might refuse the vision screening, for example if they have an arrangement with a group of optometrists.
4. Result are sent home, but parents often say that they do not remember getting them.
5. Teachers have little understanding of where to access the results.
6. Parents are relied upon to take children to optometrists, but there are many barriers to this happening.
7. Even when children get glasses, there are barriers to wearing glasses, because they are self-conscious about wearing them, or because they get broken or lost.
8. Other barriers to wearing glasses include the fact that parents, teachers and children may not be aware of the importance of wearing them.
9. Teachers do not routinely remind children to wear glasses.

This project uncovered various touchpoints where further consideration and co-design with a broader group of specialists and participants may help to fill in the answers. We know now that other stakeholders will need to be drawn into this collaboration. It is important to map out the key stakeholders for vision screening in a line that extends from children to the Ministry of Health. It needs to include the Vision Hearing Team, doctors and paediatricians. Ultimately, forming such collaborations can help to ensure that children's vision gets assessed, appropriate glasses are provided, and children wear glasses at appropriate times.

However, at a deeper level, the development of the prototype toolkit began to help us to penetrate the various contexts of the institutions in which children's problems are situated. These contexts include family, school and health, and all of these contexts are characterised in different ways by hierarchy and dominance (Foucault, as cited in Crampton & Elden, 2007). Clearly, the children's need for vision screening is not going to be met unless we can find ways to unpack the tensions between these institutions. It is a genuinely 'wicked problem' (Buchanan, 1992).

CONCLUSION

This co-design process resulted in three key findings. Firstly, having experts from across field in co-design process meant that the project progressed at an incredible pace. At each potential stumbling block, experts presented with validation and skills to progress the project.

Secondly, this project has imparted key learning for the 288 intermediate pupils about the importance of eye health, and repetitive testing. Pupils commented about how they enjoyed being heard and their pleasure in seeing improvement being made in the next iteration. Hopefully, this helps them to understand the need for deeper thinking and that the first take is never perfect. Lastly, the prototyping and testing in large groups acted as a tool to uncover a Wicked Problem as well as to gain media attention and funding. As a result, the project is now set up to tackle the wicked problem with a broader stakeholder, and prototype results and feedback data from the co-design team of approximately 300, including the parents of the pupils.

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Sarah Drummond is a final year occupational therapy student with a history of commitment to community development projects. She took a year out from her studies to be project manager of the Vision 2020 Project. Her placement experience includes education, stroke rehabilitation, forensic mental health, and community physical settings. Sarah hopes to continue with postgraduate research.

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EQUITY IN HEALTH: A REVIEW OF DISPARITIES AMONG MĀORI PRE AND POST CULTURAL SAFETY EDUCATION/ KAWA WHAKARURUHAU IN NEW ZEALAND

Erana Heperi

INTRODUCTION

Equity in health is expressed as the absence of avoidable or remedial differences throughout various collectives, regardless of those collectives being defined socially, economically, demographically, or geographically (World Health Organisation, 2020). The concept acknowledges that not only are differences in health status unfair and unjust, but they are also the result of differential access to the resources necessary to lead healthy lives. Māori occupy a unique position in New Zealand society. As Tangata Whenua, an indigenous minority, and a group facing particular economic disadvantage, the social position of Māori has frequently been the focus of public discussion and debate. The purpose of this paper is to consider the journey of New Zealand's indigenous population through the health system, discussing relevant events such as the Māori cultural renaissance, biculturalism, health reform and the influence of Te Tiriti o Waitangi in tino rangatiratanga and the preservation of taonga (Wepa, 2015; Ministry of Health [MOH], 2020). The aim is then to compare past and present health inequities to identify variation or change with the introduction of Cultural Safety. Health disparities will be identified with the use of health status indicators, specifically morbidity, mortality, use of health services, socioeconomic status and life expectancy.

CLINICAL ENVIRONMENT

During my course of study for a Bachelor of Nursing degree, it became exceedingly obvious that in many ways, Māori are at a disadvantage. A significant disadvantage which reverberates through many aspects of contemporary society. Healthcare is one of many areas which is highly emotive and provokes significant concern for Māori. The story of health for Māori is one of systemic disparities in health outcomes, in determinants of health, in health system responsiveness and representation in the health workforce (Reid & Robson, 2006). In almost every major disease category, Māori bear a disproportionate burden of risk, morbidity, disability, and mortality (Heather, Dominic, Jacque, & Timothy, 2020). My personal experience of such inequity comes not only from being Māori, but also through working with Māori during placement. Education received by students during a Bachelor of Nursing may be considered supportive but superficial and does not address the broader issues at play. Furthermore, student colleagues often struggle to meet the Nursing Competencies (2012) 1.2 & 1.5, specific to Māori and Te Tiriti and are unsure how to provide evidence of working meaningfully with Māori consumers (Nursing Council New Zealand, 2012). This led to a personal inquiry of the effectiveness of cultural safety in attending to the more complex needs of Māori and raises the question, does the health system operate in a way which respects Te Tiriti by working in a collaborative partnership with Tangata Whenua?

HISTORICAL OVERVIEW

In order to analyse the present health status of the indigenous population, a brief study of the past is required. It is impossible to separate the historical colonial context from the contemporary health status of Māori. National and international research has long documented the negative impact of colonisation to indigenous populations worldwide (United Nations, 2009). The arrival of Pākehā to Aotearoa not only brought disease, conflict and dispossession but also caused the destruction of indigenous belief and value systems (Reid & Robson, 2006). Exposure to infectious disease with no prior immunity or relative coping mechanisms led to a decline in the population by one third. Dispossession of land not only increased the likelihood of poverty but also susceptibility to disease, overcrowding and malnutrition. It dismantled social networks which aided practical and emotional support in times of need (Pōmare, 1995).

A significant advantage for Māori in contrast with indigenous counterparts throughout the world, is the signing of Te Tiriti o Waitangi, despite long being viewed as a point of contention for Māori. Te Tiriti is now recognised by governing bodies as the most critical document for Māori, to correct inequity. Te Tiriti symbolises a promise of protection and a guarantee to the same right and privileges as British subjects (Wepa, 2015). Unfortunately, it has been a promise unkept but one that Māori continue to hold the Crown accountable to. Rising tensions and debate during the late 1960s and 1970s, is marked by the phrase 'honour the treaty'. Many Māori and Pākehā activists believed the Treaty to be fraudulent due to the neglect of Crown obligations (Came, Doole, McKenna & McCreanor, 2018). Due to the breaches of Te Tiriti, activist groups protest for equity and the right to live as Māori. The formation of the Waitangi Tribunal in 1975, provided a platform for claims against the treaty, pushed largely by urban activism of Māori to address the social and economic impacts of legislative induced poverty.

Later in 1986, the Ministry for Social Welfare was directed to investigate Māori perspectives of welfare. The report produced by the Ministerial Advisory Committee (2001) opposed racial discrimination present in governmental bodies and provided a catalyst for the introduction of biculturalism (New Zealand Parliament, 2009; Wepa, 2015). Before this, Aotearoa was unofficially a monocultural society. The renaissance of Māori culture and the implementation of biculturalism resulted in a further restructuring of the health system. A bicultural society is a theory of two cultures coexisting equally – a theory supported by the Treaty maintaining a platform for a negotiated partnership. True biculturalism is about sovereignty. According to Durie, "biculturalism exists when – values and traditions of both cultures are reflected in society's customs, laws, practices, and institutional arrangements, with both sharing control over resources and decision making" (1998, p.101).

Aotearoa underwent a series of significant health system reforms throughout the 20th century, mirrored around the world, which resulted in several benefits but also highlighting inconsistencies and disparities among specific population groups (Gauld, 2003; New Zealand Parliament, 2009). Basic healthcare structures developed early during the colonial history, and transitional changes during the health reforms saw the development of local hospital boards, regional authority-based structures for public health monitoring and surveillance. The most potent stimulus of health reform was the economic downturn in the 1980s. Global financial changes and loss of access to specific markets led to a significant impact on the economy and subsequently, the provision of the welfare state. The changes in welfare drew attention to a disparity, showing an inability of specific groups within the population, to access healthcare services and to pay for the increase in fees (Gauld, 2003; Ross, 2017). At that time, Māori represented more than 40% of those utilising the welfare service.

HEALTH ISSUE

Health status is measured by monitoring factors such as life expectancy, mortality, morbidity hospital and General Practice service utilisation. A well-known criticism of the conventional measurement of health status is its limitation to only identify death and illness rates, rather than the measurement of health and wellbeing (Statistics New Zealand, 1994). Statistics collected by government agencies are, in general, quicker and less costly, compared

to lengthy self-assessment surveys that are difficult to collect and analyse. However, despite their limitations, conventional methods of data collection show strength through critical identification of trends over a period of time. While stand-alone rates of morbidity or mortality can be rightly criticised as an incomplete overview of health status, serial measurements over time, in conjunction with additional relevant data, the statistics are likely to provide a more complete and accurate overview.

A review of relevant indicators between 1970 to 1991 revealed: mortality – the death rate for Māori in almost all major causes continued to decrease alongside non-Māori. However, a difference between populations remained, regarding the rate of sudden infant death syndrome, youth suicide, homicide, violence; and motor vehicle accidents (Statistics New Zealand, 1994; Pōmare, 1995). A reduction in the death rates from asthma and coronary heart disease also decreased but overall remained disproportionate to non-Māori (Pōmare, 1995). Cancer bwas the leading cause of death during this period. Morbidity – relevant to mortality, the rate of hospital admissions for Māori increased for almost all disease categories; the primary causes for admission were asthma, unintentional injury, motor vehicle accidents, ear disease, respiratory and heart disease. Admissions to psychiatric services increased for Māori, compared to a decline in non-Māori, where alcohol dependence or abuse remained the leading cause for admissions in males and the second most common cause among Māori women. Drug dependence or abuse was the third cause of admission for Māori men (Pōmare, 1995). Māori also accessed health services later than non-Māori, equating to more severe symptoms of illnesses before help was sought.

An additional and vital indicator of health is socioeconomic status; whereby the colonial and political impacts for Māori and subsequent disparities are evident. Determinants of health include aspects of income, employment, housing, education, family structure and lifestyle practices. Trends from that time indicate Māori became worse off compared to non-Māori (Statistics New Zealand, 1994; Pōmare, 1995). Unemployment was particularly high among Māori (24.2 percent compared to percent non-Māori) affecting levels of income, directly impacting access to healthcare. Māori males received an annual median income of $12,995, less than two thirds than that of non-Māori. Furthermore, percent of Māori had no assets compared to percent of non-Māori. During this period, we also saw an increase in solo parent family structures from percent in 1981 to percent in 1991. Positively, there were improvements observed in education where in 1993, 34 percent of Māori exited school without a formal qualification, compared to 53 percent in 1986. This is closely associated with the Kōhanga Reo movement catering for 49 percent of Māori in 1993; however, youth continued to be at risk of exiting early compared to non-Māori. In terms of housing, 40 percent of Māori were living in rented accommodation compared to 21 percent of non-Māori (Statistics New Zealand, 1994). Prominent trends within literature demonstrate the socioeconomic position of the Māori during this period and directly impact health status.

Status Quo

Equity in health is defined as 'differences in health that are unnecessary, avoidable, unfair and unjust' (Whitehead, 1992 p.431). In the 21st century, it is not difficult to assess the health status of contemporary Māori, as relevant literature carries trends consistent with the previous decades. The negative impacts of a system which supports values and beliefs of the dominant group has seen inequity echoed through many of society's institutions. Māori are significantly over-represented in literature relating to mortality and morbidity, in addition to maintaining a lower socioeconomic position. It is supplemented by disproportionate representation in social sectors of welfare, unemployment, justice and corrections. Simultaneously, Māori are under-represented in significant roles in society which would affect positive political and systematic change for Māori, as well as other minority groups. The current health system does not meet the specific needs of minority groups, and the quality of service is variable, despite efforts of the successive government for change since 1938 (Matheson et al., 2013).

In 1988, the Health Funding Authority appointed eight priority areas of importance for Māori development (MOH, 2000). Although there are many areas of need in Māori health, the following were identified as the most concerning at that time. Priority areas identified were mental health, diabetes, immunisation, injury, oral health,

hearing, smoking and asthma. Conversely, at present many of the previous health priories remain. A study in 2003/04 found that just over half of Māori had experienced a mental disorder during their lifetime, and sustained higher rates of serious disorders than Pasifika, non-Māori and non-Pasifika peoples (Baxter, 2007). Māori are disproportionately burdened by non-communicable disease processes such as cardiovascular disease and the ensued complications. In 2002/03 the prevalence for self-reported diabetes among adults was 6.9 percent for Māori males and 5.1 percent for Māori females, compared to 2.6 percent and 2.1 percent in non-Māori respectively (Harwood & Tipene-Leach, 2007). In 2000-04, respiratory diseases were one of the five leading causes of death and hospitalisation for Māori (Curtis, Harwood & Riddell, 2007).

More current statistics show Māori have one of the highest age-standardised rates of Emergency Department [ED] use (18.0 per 100 population) during 2014/15, second to pacific island people. According to Ministry of Health (2016), ED service utilisation rates increase with each level of neighbourhood deprivation, the lowest decline being the least deprived and the highest being those most deprived or those of a low-socioeconomic status. Māori ethnicity is an important risk factor, where the prevalence of diabetes among Māori is three times higher than non-Māori, attributable to obesity and neighbourhood deprivation (MOH, 2018a, 2019a). Māori are diagnosed at a younger age and are more likely to develop complications of diabetes such as stroke and heart disease contributing to a higher rate of diabetes related death for Māori. Recent statistics (2017/18) reveal 47 percent of Māori adults are obese up from 44 percent in 2011/12 (MOH, 2013, 2018b). A higher proportion of Māori live in deprivation and those living in the most deprived areas of New Zealand are over 1.5 times more likely to be obese (MOH, 2018b). Māori and Pasifika have 25 percent lifetime risk of developing diabetes compared to European (Farrell & Dempsey, 2011).

In 2015, the mortality rate for ischemic heart disease in Māori was twice that for non-Māori. The Ministry of Health (2019b, 2019c) state that from 2006-2015, there was a decline in the number of fatal and non-fatal ischemic heart disease, however, Māori remain disproportionately high in mortality (MOH, 2019b, 2019c). According to the Health Survey 2017/18, reported stroke was 2.7 times more likely in Māori women, than non-Māori women. In general, rates of stroke mortality have decreased by 62 percent since 1981, however Māori experience a slower rate of decline and suffer stroke at a younger age than non-Māori. During 2016, Māori men and women have higher rates of new cancer registration than non-Māori. Furthermore, Māori experience a higher rate of death from cancer than non-Maori (MOH, 2019b, 2019c). Māori also experience significantly higher rates of mental illness, higher rates of suicide and greater prevalence of addiction. While the prevalence of mental distress among Māori is almost 50 per cent higher than non-Māori, Māori are 30 per cent more likely than other ethnic groups to have their mental illness undiagnosed (New Zealand Mental Health and Addiction Inquiry, 2018; MOH, 2020). The implications of decolonising health systems and Crown breaches of Te Tiriti, demonstrate that current systemic and legislative policy frameworks do not go far enough to ensure the whole system complies with Te Tiriti, undermining tino rangatiratanga and furthermore, the current 'treaty principles' have been found to be antiquated, and require a more elaborate approach (Heather, Dominic, Jacque, & Timothy, 2020).

IMPLICATIONS

The aim is not to condemn the continuation of health inequities or validate the need for Māori health-focused interventions, as this is well researched and echoed worldwide (Durie, 1998; United Nations, 2009). The aim is to discuss mechanisms for change, such as biculturalism and cultural safety and ascertain if such interventions have influenced a positive systematic change in disparities. Health equity is defined as "the absence of systematic disparities in health, or in the determinants of health, between different social groups who have different levels of underlying social advantage/disadvantage, that is, different positions in a social hierarchy" (Braveman & Gruskin 2003, p.254). For Reid and Robson (2006) the national and international evidence demonstrating ethnic health inequities are strong; however, this information is often ignored due to absent or poor-quality ethnicity data or a data set not being analysed by ethnicity. Additionally, inequities are only briefly mentioned rather than undergoing

frank and robust discussions. Consequences related to not fully exploring or understanding the reasons why such disparities exist are significant, as the status quo will remain and disparities between groups may continue to increase (Reid & Robson, 2006; Matheson et al., 2013). This approach to literature supports a superficial understanding of the cause of disparities. Critically, this can be viewed as a lack of commitment to attend to these issues, and furthermore, prevents wider communities from being fully informed.

Improving health disparities is dependent on a combination of socio-political factors, most of which begin well outside the clinical setting. Significant health improvements are unlikely unless current methods are re-examined to incorporate a political and intersectoral shift in clinical practice, legislation, and national strategy (Matheson et al., 2013; Hogarth & Rapata-Hanning, 2019). A focal theme in colonisation is the belief in white superiority, which stems from an ethnocentric ideology (Germov, 2014). Unless the negative impacts embedded in the process of colonisation are acknowledged as deliberate, it is easy to assume that colonisation is something accidental or inevitable or something of the past rather than a major influence on contemporary society. Rationalisation of inequity for Māori has involved the use of theories such as deficit theory or victim-blaming, where the issues experienced among Māori are attributed to inferior genetics, education, aptitude, ability, effort or luck (Reid & Robson, 2006).

This type of oppressive ideology is circulated and reverberates throughout communities, impacting attitudes of those delivering health services and the quality of care received. Ignoring structural and systemic bias, despite current literature highlighting Māori experience a deficit in access to health services, means ethnic inequity is likely to continue. In a study by Curtis et al. (2019), evidence indicated pro-NZ European bias among medical students, with most respondents indicating some level of preference for Europeans with positive compliance attributes relative to Māori. This aligns with international studies that find bias favouring the dominant racial/ethnic group among medical students and other health providers. If nurses, practice with an ideology or misconception of Māori being undeserving, or that Māori are rightly positioned as they are, due to lack of effort, compliance or aptitude; these nurses prevent Māori from achieving their aspirations for health and wellbeing. This approach impacts the opportunity for all New Zealanders to live their healthiest lives despite one's specific needs or position in the social-economic hierarchy, thus dishonouring Te Tiriti (Matheson et al., 2013).

DISCUSSION

For Came et al. (2018), the New Zealand government has long been accused by activist scholars who work to expose mono-culturalism and institutional racism. The government's response to activism and protest in the 1970s, concerning the neglect of the treaty obligations, was to introduce bicultural practices in society. From this came an induction of aspects of Māori culture dispersed through the healthcare sector. This involved the facilitation of pōwhiri, karakia, mihi whakatau and poroporoaki. This movement saw the creation of Māori liaison teams and Kaiāwhina within DHB to fulfil cultural requirements. The presence of Māori was being acknowledged, and the culture was partially integrated throughout society. Pākehā discovered a newfound acceptance for Māori Tikanga, implementing a protocol for the use of different coloured towels for washing of the body and head. The change was significantly therapeutic for Māori, symbolising a long sought-after partnership and collaborative approach ascribed by Te Tiriti. However, now well into the 21st century, Māori continue to encounter premature mortality, and in almost every major disease category, Māori are disproportionately affected compared to non-Māori. In some categories, the disparity has become worse (Reid & Robson, 2006; MOH, 2019a). This raises the question, has biculturalism been effective in restoring equity for Māori?

Cultural safety is a more appropriate intervention and mechanism for change. Introduced by Dr Irihapeti Ramsden in the 1980s, a framework which implores nurses to consider their own culture and bias when working with Māori, extending beyond cultural competence and sensitivity (Wepa, 2015). It evokes analysis of one's values and beliefs and requires acknowledgement of the practitioner's position of power and the potential they possess to hinder

service delivery. It is a significant contribution to nursing education and an important tool which helps identify underlying issues relating to interpersonal racism, discrimination, or preconceptions a practitioner may not even be aware they possess. Curtis et al. (2019), argue that cultural safety rather than cultural competence or sensitivity should be implemented not only across various medical disciplines but through a multi-sectoral approach to partnership with Māori, for its capacity to assess and highlight prejudice (Robinson, Kearns & Dyck, 2007).

For Curtis et al, (2019) the investment in Māori culture has not addressed inequity – "It is not a lack of awareness about 'the culture of other groups' that is driving health care inequities – but rather the unequal power relationships, unfair distribution of the social determinants of health, marginalisation, biases and unexamined privilege" (p.2). Came (2012) asserts racism as a determinant of health, one that remains unacknowledged and the growth in evidence associates ethnic disparities with racism and privilege. Practitioners should be prepared to challenge their own culture and cultural systems rather than focus on becoming "competent" in other cultures. Cultural safety introduces the conversation of racism and privilege since its introduction to nursing; however, inequities persist (MOH, 2018b). This framework should be utilised as a baseline for collaborative partnership; it is not the solution for inequities but a catalyst for change.

RECOMMENDATIONS

Literature relating to barriers in access to healthcare for Māori is overwhelming, with the most critical determinant being institutional racism. "Honouring Te Tiriti is a pathway to transforming racism" (Came, 2012, p.2). The eradication of structural racism, along with improvements in autonomy arrangements with Māori is essential. Māori are well equipped to be strategic collaborators with the health sector with significant insight (MOH, 2019a). This type of adjustment is likely to encounter resistance; however, this is not a credible reason to weaken the necessity for change. Removing institutional racism should be driven by leaders in the professional bodies, unions, and our communities. Systematic efforts should be made to remove policies, practices, and leadership, which enable institutional racism in health (Chin et al., 2018). Support should be given to the facilitation of free, frank and fearless discussions about colonial history, structural racism, privilege and bias to develop policies and frameworks which explicitly address root causes. Unfortunately, new policy development often does not align with evidence-based approaches known to improve equity. A review of the New Zealand Health Strategy (MOH, 2016) found that the health system often relies on the isolated efforts of committed individuals and organisations to achieve health equity rather than through a planned systems method (Came, Creanor, Doole & Rawson, 2016).

Literature relevant to equity and Te Tiriti applications reports that efforts should be sustained, systematic and multi-levelled, rather than ad hoc and piecemeal. An authentic, committed, and coordinated approach is required. The new Māori Health Action Plan – Whakamaua, has prioritised achieving equity and the elimination of racism and discrimination in the health and disability system. This document states "achieving equity for Māori will require all contributors to health to acknowledge inequitable health outcomes for Māori as not only unfair and unjust but also avoidable" (MOH, 2020 p.32). This action plan has highlighted that the attainment of equity lies in resource prioritisation for Māori and embedding cultural safety system wide, with all contributors being encouraged to acknowledge and address their own attitudes and bias.

CONCLUSION

Evidence provided in this paper is consistent with research from the last four decades, that for Māori, health inequities have not changed. In many ways, these disparities have worsened compared with non-Māori counterparts. The purpose of this paper is to consider the effectiveness of mechanisms for change, such as cultural safety in the betterment of Māori health outcomes. While achieving equity for Māori, Pasifika, and low-socioeconomic populations is a priority, addressing policy and service barriers that cause inequities will benefit

many minority groups that suffer inequities in health. A multi-sectorial approach is required, that often begins well outside the clinical setting. Biculturalism and cultural safety mark significant contributions to Māori health development, prescribing collaboration between parties; however, as inequities remain constant, the conversation needs to continue.

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FAMILY-CENTRED PRACTICE IN A REHABILITATION SETTING

Raveena Victor John and Mary Butler

INTRODUCTION

In this paper we explore the importance of integrating whānau (family) into all aspects of the rehabilitation process in a New Zealand context. An individualistic model of healthcare practice leads to significant challenges in ensuring that this is a seamless process and there can be real hurdles to enabling partnership and collaboration between healthcare practitioners, clients, and their whānau. The paper is written as a reflection of the experience of the first author, who came to understand that the issues arising on her fieldwork placement had parallels with her own personal experience. She was supported and encouraged in her reflections by the second author who has previously published about the importance of family-centred care (Butler, 2010, 2011; Barrett, Hale & Butler, 2013; Barrett, Butler & Hale, 2016).

The issue arose during a fieldwork placement in a rural setting. The first author, an international student, was struck by the importance of whānau in ensuring good rehabilitation outcomes for an elderly Māori gentleman. The situation particularly resonated with her because of her personal history of the rehabilitation process when her own mother had a stroke. An occupational therapist was instrumental at that time in using creative ways of integrating the family fully into the rehabilitation process with her mother, who eventually made an excellent recovery. This positive experience was instrumental in the decision of the first author to become an occupational therapist. It made her particularly sensitive to the importance of ensuring that she learns to practice in family-centred ways.

FAMILY-CENTRED PRACTICE WITH OLDER ADULTS

Family-centred practice within the healthcare setting has an important role to play in tackling a rapidly increasing population of older adults (Anderson & Rose, 2019). Person- and family-centred care (PFCC) involves four key aspects: (i) dignity and respect; (ii) participation; (iii) information sharing; and (iv) collaboration (Giosa, Holyoke, & Stolee, 2019). A systematic review by Giosa et al. (2019) described how each healthcare discipline is guided by a distinctive model where it addresses one or more key concept of the PFCC in which it can be similar or different to another discipline.

Shared decision-making, partnership, trust, and respect are key components of collaboration (McGill University, 2020). For instance, occupational therapists focus more on clients' participation in activities of daily living, while other healthcare professionals focus of other elements of care. This makes collaborative work important (Giosa et al., 2019). The importance of collaboration for occupational therapists is reflected in the competencies for registration, which include building partnerships and working collaboratively with healthcare professional, clients and their whānau. (OTBNZ, 2015b).

Most older adults prefer the involvement of their families in at least one aspect of their care (for example, decision-making) (Lao, Low, & Wong, 2019; Aschbrenner et al., 2014; Morton, Tong, Howard, Snelling, & Webster, 2010). Family involvement provides a sense of support, comfort and understanding (Ekberg, Meyer, Scarinci, Grenness, & Hickson, 2015). However, there are studies that point out the lack of opportunities afforded to families to participate in the client's care (Ekberg et al., 2015; Hardin, 2012).

Some of the preferences for family-centred care are associated with socioeconomic status and culture (Chang & Yu, 2013; Anderson & Rose, 2019). In New Zealand, there are strong suggestions that Māori clients particularly value family-centred care (Martin, 2018). The principles of the Treaty of Waitangi include: (a) partnership (b) participation; and (c) protection (MHNZ, 2014), which are reflected in the development of the culturally relevant whānau ora (family health) approach (MHNZ, 2018). The principles are often expressed in terms of particular values. For example, whakarangatira (enrich), awhi (support), kotahitanga (togetherness) and aroha (compassion). In New Zealand there are particular issues in accessing any healthcare for some rural communities and the distance involved often compound the difficulties for ensuring family-centred care (Chan, Hart, & Goodman, 2007).

ENCOUNTERING THE NEED FOR FAMILY-CENTRED PRACTICE

The first author worked with a Māori client named Hoani (pseudonym) at the rehabilitation unit during breakfast group. Hoani had multiple fractures on the dominant side of his body due to a fall. It included fractures to the neck of femur, humeral head, and distal radius. Prior to the fall, he lived independently. Due to the fall, he could not safely and independently engage in Activities of Daily Living (ADLs) such as self-care. He was deeply unhappy during rehabilitation sessions, complaining about wanting to go home and refusing to engage in activities such as a breakfast club. He refused all social interactions and often presented with a low mood. However, there was a shift in mood when his mokopuna (grandchild) visited him in the hospital during the school holiday which was on a weekday. He arrived smiling and introduced his mokopuna to the rest of the clients that were present at the breakfast group, insisting on making a cup of hot chocolate and enthusiastically taking part in the group. It was so obvious that this was what motivated him. This presented an ethical conundrum, because nothing in the hospital seemed to be set up to enable this kind of family-centred practice. When there was a discussion with Hoani, his daughter and mokopuna, they all said that Hoani needed more opportunities for the involvement of his mokopuna during his therapy sessions. However, this seemed impossible as occupational therapy working hours were during the weekdays from 8 a.m. to 4 p.m. which was not in line with the free times of his mokopuna as it clashed with school. Another factor in this case was that Hoani and his whānau lived in a rural area, and visiting required drives of almost two hours in both directions.

FAMILY-CENTRED PRACTICE AS AN ETHICAL ISSUE

The quadripartite ethical tool (QET) is a framework that encompasses four ethical schools: deontology, utilitarianism, virtue ethics and axiology (Drolet & Hudon, 2015). Together, these can provide a lens to examine the issues faced by Hoani.

Deontology highlights the issue of autonomy and Hoani's actions clearly suggest that his autonomous wish was to work more closely with his family. Utilitarianism is all about the greatest good for the greatest number, and so therefore it may be argued that the narrow individualist interpretation of patient needs is actually cost efficient. Virtue ethics can provide a way of thinking about whether care and courage are virtues that the therapist might want to foster in order to meet the expressed need for family centred care. Finally, axiological ontology frames the specific values of the occupational therapist as centred on occupation. In this case, it was clear that Hoani was only going to participate in activities if his whānau was part of these.

It is also important to consider exactly where the practitioner is situated in such decision-making. The first author comes from a culture where family values are important and it felt important for her to integrate this understanding into her practice, although she was nervous about doing so. As a foreign student in New Zealand she was aware that she found it difficult to have the confidence to express her opinions, especially where this seemed to be an issue of values and. She was unsure at times whether her views were in line with the values of the New Zealand culture and these effects on her behaviour are reflected in a study by Nayar and Sterling (2013) about transitioning from one country to another. However, a trip to a marae helped considerably with gaining clarity, when she heard several Māori give speeches about how much they valued collaboration and whānau involvement in the healthcare system.

There are obvious environmental issues implicit in this case, not least the fact that occupational therapists were employed in a 9-5 employment contract. There were many ways that this might be addressed, but it would require high level agreement. And of course, Hoani was distanced from his whānau because of the rurality of their situation. There was very little point in suggesting to Hoani that he should Zoom his mokopuna, when it was the physical touch that he was missing.

CONCLUSION

It is clear, there are many things that need to be changed in order to enable family-centred practice in a rehabilitation setting. These changes will require adherence to the values and principles underpinning whānau ora care at all levels, from leadership to practitioners. The need for whānau to be involved was acutely obvious in the case of Hoani. The experience of the first author with her mother when she had a stroke and was involved in her care as a teenager was an excellent example of how good practice can be enabled. Her capacity to understand the human need for family-centred care gave her insights that she was able to apply to the New Zealand context and which will continue to shape her practice into the future.

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Moral Courage in Bicultural Contexts: The Need for Cultural Sensitivity in Practice

Jessica Hope and Mary Butler

INTRODUCTION

Occupational therapists in New Zealand work with increasingly culturally diverse populations. There is a need for practitioners to have adequate tools to work collaboratively with these clients and their whānau to provide equitable care. To avoid contributing to the already prevalent health disparities, we must respect clients' bicultural values and autonomy.

This essay explores an ethical issue that arose when I was presented with the opportunity to work with an elder Māori woman on a home visit, whom I will refer to as "Anne." I visited Anne to complete a home assessment following a fall. Before my arrival, I was directed by my supervisor to prepare some questions about culture to ask after the home assessment. I initiated the home assessment almost instantly upon arrival which led to Anne being very disengaged throughout the assessment, so her mokopuna (grandchild) did most of the talking. The home assessment was a non-standardised initial home assessment carried out from a westernised European perspective. It consisted of a general set of questions, followed by an observation of the client's home environment. This assessment was carried out the same way for each client; it was not adapted for use with other cultures, including the indigenous Māori culture, thus reflected a lack of collaboration and respect for Anne's bicultural values. However, there was a pivotal point within this interaction when I asked Anne for consent to address the questions regarding her culture. At this point, Anne's engagement shifted, and she became very willing to interact. Anne said that she had not been asked questions about her culture by a health practitioner before and began thanking me multiple times. Through her joy, I could see the value this held to her.

The contrasting engagement of Anne within the visit highlighted the importance of working collaboratively and respecting the client's bicultural values and autonomy. This experience was very confronting for me. I realised the importance of asking questions focusing on culture. However, usually, these questions do not get asked. If I were not directed by my supervisor to meet my competencies, I question whether we would have neglected to consider Anne's cultural values while also overlooking the need for collaboration when working in a bicultural context. This experience made me realise that courage might be needed to diverge from 'normal' practice routines to ensure equity and best practice with culturally diverse clients. Furthermore, this gives rise to the ethical issue of disregarding client bicultural values and autonomy when conflicting values are present.

CRITICAL REFLECTION

Kinsella, Park, Appiagyei, Chang, and Chow (2008) state that students in practice commonly observe conflicting values in practice leading to ethical tensions. These values can be shaped by various factors; for Anne, her values were shaped by her Māori identity (Kinsella et al., 2008). If these ethical tensions such as conflicting values are left unresolved, they pose implications for the client, which Aiken et al. (as cited in Bushby, Chan, Druif, Ho, & Kinsella, 2015) states can decrease the quality of the client's care and overall health outcomes.

Conflicting cultural values holds profound relevance for Māori as a minority culture in New Zealand. Jansen and Smith (2006), state that the New Zealand health systems reflect the dominant European culture and do not provide equal health outcomes for Māori. Bacal, Jansen, and Smith (2006) state that these health disparities have also been found to be partly due to the professional behaviour of our health care professionals. Parsons and Dickinson (2017) believe there is a moral vacuum, presenting in the delivery of bicultural care as a result of dominant cultures imposing their values in bicultural contexts. They also state that we need to be aware of our values and biases as these may have the capacity to override those of our clients (Parsons & Dickinson, 2017). This statement reflects the possible override of Anne's values throughout the home assessment which imposed westernised perspectives; this impacted on the collaborative relationship between the client and practitioner as well as the overall quality of care.

Many Māori believe their way of living is their culture, and this influences their view on collaborative practices for health and wellbeing (Wepa, 2005, as cited in Wilson, 2008). Martin (2018) suggests that Māori can feel overlooked within the healthcare system. The value which Māori place on working alongside health practitioners is often neglected (Health Quality & Safety Commission [HQSC], 2014).

The need for collaboration with the client and whānau in order to respect their bicultural values and autonomy also holds relevance in regards to New Zealand's founding document. Te Tiriti o Waitangi has influenced many of our practice environment policies and states Māori and non-Māori must form a partnership that benefits the whole community (Hopkirk, 2013). This document holds relevance within the occupational therapy competencies, specifically "working appropriately for bicultural Aotearoa New Zealand" and "building partnerships and collaborating" (Occupational Therapy Board of New Zealand, 2015a). Both these competencies state the need to work collaboratively with the client to ensure culturally competent care is given and the client's values and autonomy are respected. When working with Anne, these competencies were achieved by asking a few questions at the end of the visit. However, this was done as a task rather than a desired approach. This implementation of competencies could be improved through practitioners building rapport and asking simple questions regarding the client's cultural needs at the beginning of sessions.

When working with Māori, the first interaction is often the most important. Māori health Liaison Officer Querida Whatuira-Strickland states that just greeting the client with "Kia ora" can initiate the reduction of barriers presented by conflicting practitioner-client cultural values (HQSC, 2014). I believe that doing this with Anne would have made an enormous difference when working with Anne. Initiating the engagement in a culturally sensitive way creates a sense of manaakitanga for the client, and it sets up a more collaborative therapeutic relationship (New Zealand Trade Manual, 2011). This will enable an understanding of their values and perspectives around care, as well as make practice decisions with collaboration and cultural sensitively, of which will also ensure good manaakitanga (Parsons & Dickinson, 2017).

Ensuring a bicultural focus within practice has become even more relevant within the context of the Black Lives Matter movement and the occurrence of systematic racism within organisations leading to non-moral treatment and lack of autonomy (Diangelo, 2018). This movement resonates with minority groups within New Zealand and highlights the need for change (Walls, 2020). Within New Zealand health systems, Māori ability to exercise autonomy effectively is often undermined. Furthermore, this resonates with my ethical issue through the need for practitioners to provide culturally appropriate treatment and autonomy to culturally diverse clients to avoid disparities between races and provide collaborative care. It is said that the big picture systems in New Zealand designed from a westernised perspective seem almost designed to harm and fail Māori, Pasifika and people of colour. As demonstrated within the interaction with Anne, changes need to be made. Generalised approaches are not always effective and can hinder engagement and quality of care for clients (McConnell, 2020).

As occupational therapists, we must adhere to the Occupational Therapy Code of Ethics. The principle most relevant to the ethical issue described is Principle 1 regarding "relationship with those receiving occupational

therapy services", specifically 1.1 "occupational therapists shall respect the autonomy of clients' roles in family, whānau and society, and enabling power and decision-making" (Occupational Therapy Board of New Zealand, 2015b).

Disregard for client bicultural values and autonomy is explored here in relation to the Quadripartite Ethical Tool (QET). The QET is made up of four quadrants: deontology, utilitarianism, virtue ethics, and axiological ontology (Drolet & Hudon, 2015). The ethical lens to which I have taken my issue is axiology which has a focus on values. Drolet (2014) states occupational therapy is founded on core values and that individuals are axiological beings. When working with Anne, it was clear that conflicting cultural values were evident. Furthermore, this interaction drew attention to the need to change westernised values. This shift was necessary in order to work collaboratively and competently with the client while also meeting the occupational therapy core values of equality and freedom (Drolet, 2014). Such a change in behaviour would respect client values and provide them with a sense of autonomy. The aim, as a new practitioner, is to develop my own sense of practitioner competence in way that commits to the values of fairness and impartiality, while enabling client choice, independence, initiative and self-direction. I hope, in this way, to put client centredness at the heart of my occupational therapy practice (Peloquin, 2007).

Within the context of the QET, I can see that my issue is primarily about values (axiology) (Drolet & Hudon, 2015). However it also aligns with utilitarianism, which was all about the cost effectiveness of a 'one size fits all' type of home assessment. This might fit within a westernised context, but did not have adequate nuance for a bicultural context.

From a deontological perspective, my work was also about ensuring that Anne had the opportunity to express her autonomy. This was done by asking questions regarding her culture. Finally, I felt a certain sense of moral courage underpinned the decision to address the bicultural issues in this home assessment. This moral courage reflects a type of virtue, which is the last quadrant in the QET. LaSala and Bjarnason (2010) state that the ability to demonstrate moral courage can be improved through practice and I agree that the skills underpinning bicultural competence are likely to be enhanced by taking the chance to ask the right questions in future.

When I reflect on this experience, I have to ask myself the question: would I have addressed the bicultural context of Anne's life if it was not necessary in order to meet my practice competencies? I suspect that I would not have done it if I didn't have to. However, having done it I understand more about how I value the need for equitable care and client autonomy. The impact of working collaboratively while been culturally sensitive was so evident with Anne, it has made me realise that all us need to have the confidence ensure competent care is provided in a bicultural context.

I am now more aware that a bicultural focus can very easily be overlooked. My supervisor stated that she learned from observing my experience with Anne. This was very affirming and helped me to understand that we are all on this journey together. Upholding commitment to clients and advocating for their best interests requires moral courage and cultural sensitivity (Murray, 2010).

From an organisational level, there is need for better support and training for working in bicultural contexts to enable practitioners to enhance their cultural awareness, explore cultural biases (Parsons & Dickinson, 2017), and meet the occupational therapy core value of client-centred practice (Peloquin, 2007). Kyler (2008) states that is there inadequate workplace and organisational support for bicultural practice. Training has also been said to correlate with improved competence and client satisfaction. I believe that further training would help with the process of finding moral courage in bicultural contexts enabling best practice and confidence to work collaboratively and culturally competently (Govere & Govere, 2016).

CONCLUSION

This article addressed the need to work collaboratively with clients while demonstrating the moral courage to ensure a bicultural focus. This experience emphasised the importance of respecting our client's values in practice, and I feel I have become more morally sensitised. I reflected on this experience, and understand that I was oblivious to the impact it would have on me and my future practice, as this experience has subsequently changed my perception on the importance of culturally competent and collaborative care.

Inequity within minority cultures is a prevalent issue within New Zealand. With the current Black Lives Matter movement, the need for change is being voiced louder than ever before. In conclusion, I highlight the need for organisations to support practitioners in enhancing their moral courage and cultural competence to ensure competent care is always provided, and that clients' values and the right to autonomy are met. I also highlight our individual responsibility to uphold a bicultural focus. As occupational therapists, we strive for client-centred care, and as a country, we aim to decrease health disparities present within our minority communities, but this can only be done if we harness the motivation to make changes both at an organisational and personal level.

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CERVICAL SCREENING ENGAGEMENT WITH MĀORI WOMEN: BARRIERS TO SCREENING AND THE ROLE OF THE NON-MĀORI NURSE

Georgia Hanson

INTRODUCTION

New Zealand is recognised globally for our kindness, equity and unity as a country. However behind this facade lies the stark reality of institutional and casual racism towards our indigenous population. Our healthcare system is no different. Māori are the most marginalised and deprived ethnic group in New Zealand healthcare (Theunissen, 2014). Of particular concern is the comparison between Māori and non-Māori cervical cancer incidence. As New Zealanders, we have access to an extremely effective screening tool that is proven to reduce the prevalence of cancer, yet in some areas merely half of our indigenous population engages with it. Engagement with screening services has a direct correlation to the incidence, mortality and survival of cervical cancer, so why are some Māori women not taking part? The answers lie in several substantial barriers that exist within our healthcare system, blocking Māori women from utilising screening, in turn harming the health and wellbeing of our wahine.

Non-Māori women do not experience the same prejudice, preconception and ignorance as Māori women do when partaking in smear tests, therefore a significant gap exists regarding screening rates between populations. Although this gap has decreased considerably in recent years, Māori women are still almost twice as likely to be diagnosed with the cervical cancer, and three times as likely to die from it (McLeod et al., 2010). While the issue of institutional racism and prejudice is circulating the world, we must do our part to collaborate with our indigenous population and do better. It is everyone's responsibility to provide safe and protective services to our wahine.

BACKGROUND

New Zealand has adequate screening compared to other developed countries. However, the disparity between our indigenous Māori population and non-Māori women who participate in screening programmes and attend smears tests is significant and concerning. Statistics reveal that the national three year coverage for Māori was just 67 percent as of January 2020, well below the majority population coverage of 75.6 percent (National Screening Unit, 2020). While there are many barriers that contribute to this disparity between Māori and non-Māori screening rates, there are three main obstacles that are predominantly responsible. The first obstacle is the Māori construct of whakamā – a concept encapsulating western ideals of shyness or embarrassment. Secondly, poor previous experiences in primary health care for Māori have also been identified as a major barrier, including but not limited to non-adherence to cultural safety guidelines supported by the Treaty of Waitangi for nurses in New Zealand and a disregard for Māori culture (Nursing Council of New Zealand, 2011).

Finally, these obstacles are amalgamated with a fear and/or lack of knowledge surrounding cervical screening in Māori women caused by potentially poor health education, and/or a cultural stigma surrounding fertility and sexual health. Due to this compelling and undeniable evidence, which I will discuss in greater detail below, I believe that

non-Māori nurses heavily contribute to these barriers to cervical screening engagement in Māori women and in turn, profoundly impact on the health and wellbeing of our wahine in New Zealand. Collaboration between Māori and non-Māori nurses and patients is required to improve cervical screening services for our Māori population, as this issue is the responsibility of all health care professionals in New Zealand.

BARRIERS TO SCREENING

Whakamā

Whakamā is a Māori construct encapsulating concepts of shyness, embarrassment and modesty (Sachdev, 1990), and is proven to be a key barrier to cervical screening for Māori women. As our health system is largely based on a westernised view of health, we often fail to acknowledge and understand why invasive procedures are difficult for Māori women to participate in – however it is worth noting that not all Māori women will share the same cultural beliefs in contemporary New Zealand today. The cervix is the doorway to te wharetangata (Home of humanity, or the womb) and is traditionally considered extremely tapu (sacred) in Māori culture (Lewis, 2009). Smear tests are exceedingly invasive procedures that expose women, which may be emphasised even more for traditional Māori women when considering how the sacredness of sexuality and fertility is being violated during the screening process. Generally, non-Māori health providers fail to realise that examinations and sexual health conversations are tapu (Cook, Clark & Brunton, 2014). Being tapu, cervical health and screening may not always be directly discussed within their hapū (traditionally a grouping of whānau connected by a common ancestor) which may further contribute to feelings of whakamā about their own health and screening (Scott-Melton, 2019). Other Māori concepts that may contribute to whakamā are those of Mana Wahine. Mana Wahine reflects Māori womens' connection to the land as descendants of Papatūānuku (Lewis, 2009), and links in with the concept of previously mentioned te wharetangata (house of humanity, a woman's womb). Both Mana Wahine and Te Wharetangata are concepts at the centre of whānau, hapū and iwi (historically, subgroups within Māori culture who share ancestors and common land (Te Ara, 2005) – emphasising the sacredness of the female reproductive system and the invasiveness of smear tests, particularly if performed in a culturally unsafe manner (Lewis, 2009). A disregard for Māori culture by non-Māori practitioners during such an invasive procedure, which Māori may deem as sacred, is a huge barrier which prevents Māori women accessing and engaging with screening services.

Traditionally Māori have a more holistic view on health and wellbeing than our predominantly westernised health system – though this is a generalisation as not all Māori will have identical beliefs and knowledge in contemporary New Zealand. The traditional Māori view of health can be better understood using the Te Whare Tapa Whā model developed by Mason Durie (Ministry of Health, 2017), which encompasses the four cornerstones of health – Taha Wairua (spiritual wellbeing), Taha Hinengaro (mental/emotional wellbeing), Taha Tinana (physical wellbeing), and Taha Whanau (relationships/family). All four cornerstones are considered equally important and must all be addressed to ensure total wellbeing. Our westernised health system often fails to acknowledge this holistic view and consequently fails Māori in their health outcomes. Examples of such oversights in a cervical screening context include having no option to clean yourself before a smear test (water is a symbol of life and purification in Māori culture, which could decrease a women's anxiety before a smear) as well as incidents occurring that can deeply violate a women's privacy during a smear test, such as being exposed for prolonged periods of time e.g. while a clinician has a discussion (Buetow et al., 2007). A collaborative approach to health combining both western and Māori views is required to ensure that cultural needs and preferences are adhered to for both our indigenous and non-indigenous populations in New Zealand.

Non-Māori Practitioners and Poor Previous Experiences for Māori Women

Ethnocentrism is broadly defined as thinking that one's own group and their 'ways' are superior to others or judging another group as being inferior to their own (Barger, 2019). Barger (2019) states that ethnocentrism is based on making false assumptions about others' ways of living, due to our own limited experience, however, argues that it is likely we are unaware we are being ethnocentric all the time. Ethnocentrism can be an issue in the delivery of healthcare to Māori women. Non-Māori nurses must be aware of their own cultural experiences and challenge the assumptions they make based off of these experiences, which is outlined in Principle three of the Nursing Council of New Zealand Cultural Safety Guidelines (2011) as; "understanding the impact of the nurse as a bearer of his/her own culture, history, attitudes and life experiences…" (p.8). Failing to do so results in decreased engagement with cervical screening services due to poor previous experiences for Māori women. Non-Māori nurses must collaborate and learn from their Māori counterparts to ensure the care provided is based on the patient's best interests rather than an ethnocentric assumption from personal experiences.

Māori have the poorest health status of any ethnic group in New Zealand, across all specialities and services (Curtis et al., 2019). While registered nurses are expected to abide by the guidelines set out in the Treaty of Waitangi to ensure culturally safe and protective experiences for Māori (Nursing Council of New Zealand, 2011), other regulatory bodies are responsible for the determination of cultural safety in each respective health profession. Despite this, a disregard for the spiritual significance of areas of the body associated with sexuality and fertility by non-Māori nurses, and non-compliance to cultural safety expectations for Māori is certainly a barrier and deterrent for Māori women seeking healthcare (Cook, Clark, & Brunton, 2014). Curtis et al. (2019) stated that cultural safety involves acknowledging barriers to clinical effectiveness which arise from the power imbalance between provider and patient, it seeks to "achieve better care through being aware of difference, decolonising, considering power relationships, implementing reflective practice, and by allowing the patient to determine whether a clinical encounter is safe" (p.4).

Poor experiences in New Zealand health care are all too common for Māori women, and have a strong impact on their future decisions to engage with healthcare services as shown in a study from Harris et al. (2012) where racial discrimination by a health professional was associated with lower rates of cervical screening in Māori women. Negative screening experiences (experienced either personally or relayed by trusted older women) also leave women with a reluctance to be screened/screened again (Scott-Melton, 2019). This shows that these challenging experiences have a ripple effect and can impact not only one woman, but those women within her hapū as well. Although primary healthcare providers generally endeavour to have indigenous nurses available, Māori are under-represented in health professions (Cook, Clark & Brunton, 2014).

This under-representation subsequently results in Māori not having a choice of providers and often having non-indigenous and potentially culturally unsafe nurses performing extremely invasive procedures (such as smear tests), who are unable to appreciate the sacredness and cultural significance for Māori. It is noted that health practitioners not taking time to discuss the procedure and emphasise the importance of cervical screening, not formally asking for consent or assuming that consent is gained by patients simply coming to the appointment, and pressuring women into smears through opportunistic screening are common negative experiences for Māori women (Scott-Melton, 2019). Across many articles it is articulated that Māori women value feeling welcomed and cared for during their primary health experience (mihi), noting that staff who make the experience purely clinical without taking brief time to greet and settle their patients (kaupapa) made women feel uncomfortable, vulnerable, and was a predictor of the entire experience being negative (Cook, Clark & Brunton, 2014).

FEAR AND LACK OF KNOWLEDGE

Lack of information is a common barrier for all screening services globally, and cervical screening is no exception. Findings show that a lack of knowledge about cervical cancer andcervical cancer screening and services, prove to be a major barrier for getting women to engage with said services (Scott-Melton, 2019). As previously discussed, te wharetangata is tapu, and therefore cervical health is likely not discussed within a more traditional woman's hapū. Due to this cultural context, what younger Māori women learn about cervical health comes from within their own whānau and communities, particularly from older women. If these experiences are discussed in a negative manner, including accounts of pain and discomfort, it is likely that young women will have negative connotations towards smear tests without ever having had one themselves. In a study conducted in 2019, young Māori women expressed that they didn't understand why they required screening, had very basic knowledge of their own anatomy – including where the cervix was – and had limited knowledge about how Human Papillomavirus (HPV) impacts on their cervical health, or if they had received their HPV vaccination (Scott-Melton, 2019). There are continuous accounts of situations where patients felt confused due to poor health literacy/lack of explanation and negative communication/interactions with a health provider, resulting in patients who disengaged with health services. The unfortunate fact that these experiences are so common emphasises the importance of both Māori and non-Māori practitioners collaborating to empower Māori patients to feel confident and informed, which will in turn ensure increased engagement with health services (McLeod et al., 2011). Adequate education about the need for screening, cervical health, and what screening involves is fundamental for improving Māori engagement with screening programmes. Reductions in disparities between Māori and non-Māori for cervical cancer are partly due to greater awareness of cervical cancer and screening (McLeod et al., 2011). Multiple modes of communication, the inclusion and promotion of Māori health providers and increased face-to-face communication (kanohi ki te kanohi) between provider and patient were all identified as having improved awareness amongst Māori (McLeod et al., 2011).

RECOMMENDATIONS

Research projects are currently underway in New Zealand to understand how a self-test may work for priority populations who require cervical screening. Adcock et al, (2019) explored the acceptability of a HPV self-test among Māori women as a possible alternative to smear tests. It has been established that the cost of attending a clinic and the invasiveness of a pelvic examination are other existing barriers to Māori women attending cervical screening appointments – an at home self-test removes both of these barriers (Adcock et al., 2019). The study involved hui with Māori women of both rural and urban origins who had reported not screening for 4+ years, and resulted in 397 eligible women completing the survey. The women in the hui most frequently referred to a desire for body autonomy as a primary reason for not attending regular screening, encompassing concepts of whakamā and tapu (Adcock et al., 2019). Overall, 73.3 percent of the participants stated they were likely/very likely to self-test if it was offered, and 77.8 percent stated they would be happy to perform the test in their own home (Adcock et al., 2019). The majority of the women who participated in the study were engaged in the health system but did not screen, thus proving a system failure. The findings from the study suggest that HPV self-testing could be a very acceptable and appropriate option for under/never screened Māori women (Adcock et al., 2019). Recommendations that surfaced from the study for a culturally competent prevention programme were, adequate HPV education with a whānau approach, empathetic delivery of services and flexibility within the programme to provide multiple options for Māori women, for example, at home option, in-clinic education or targeted outreach (Adcock et al., 2019). This is a viable option to implement in our primary health care system, as it directly removes several of the main barriers to screening. Furthermore, this option allows Māori women to take back power from non-Māori clinicians by collaborating to improve their own health. Performing a self-test at home allows patients to remain autonomous with their bodies and preserves the sacredness of te wharetangata. Moreover, it removes whakamā and stress from the encounter and provides an opportunity for comprehensive health education to ensure sufficiently informed consent. Implementing more rigorous cultural safety training and regularly reviewing a

practitioner's ability to be culturally safe is vital to improving Māori health outcomes – this is currently achieved for nurses in Aotearoa when renewing one's practicing certificate. It is clear from the evidence that culturally unsafe practices continue to be an enormous issue within our health system and contributes to all barriers discussed for Māori women accessing healthcare, despite efforts to enforce cultural safety guidelines. Many registered and enrolled nurses within New Zealand currently fail to acknowledge or understand Māori health concepts which are crucial when undertaking invasive procedures such as smear tests, instead making ethnocentric assumptions about the care they are delivering.

Cultural safety competence is reviewed annually for nurses; however, this should be a requirement for all health professionals. Nurses in New Zealand should be educated on Māori health beliefs and where they stem from, to gain a better understanding of the differences in Māori and non-Māori health views as well as the importance of maintaining cultural safety during invasive procedures. Non-Māori nurses must understand that collaboration between western and Māori health concepts will provide a safer, more holistic service for all. Cook et al, (2014) suggested that in order to provide culturally safe experiences, health providers must ensure they recognise Māori women as whole beings, that strong relationships are built between women and staff to enable trust, that communication is recognised and prioritised and that responsive listening is actively practiced. These actions encompass culturally safe practices and promote therapeutic relationships between Māori and non-Māori.

CONCLUSION

Māori having the worst health outcomes of any ethnic group in New Zealand reflects the failures of our health system. We are failing our indigenous women and depriving them of culturally competent, effective care that is virtually guaranteed to protect them from cervical cancer. Non-Māori practitioners are certainly either solely responsible for, or majorly contribute to all of the barriers discussed above. An element of institutional racism in the New Zealand healthcare system towards Māori patients, a general lack of appreciation and adherance to cultural safety guidelines, and an element of ethnocentrism from nurses are all factors that contribute to the barriers that impact on the health of our indigenous population – including cervical screening engagement. Collaboration is required so we can learn from our indigenous counterparts how we can improve our own practice to protect the women of our country.

Historically the burden of Māori health issues is placed on healthcare providers that identify as Māori or Māori health providers. However I believe that it is the responsibility of all healthcare providers to ensure Māori women have safe and appropriate encounters at all levels. It is an individual issue that we must expel.

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ADVENTURE THERAPY: USING ADVENTUROUS ACTIVITIES AS OCCUPATIONAL THERAPY

Helen Jeffery

INTRODUCTION

Adventure therapy commonly utilises adventure-based activities, experiential learning theory and outdoor environments to facilitate a therapeutic effect. Adventure therapy is an emerging intervention utilised by mental health clinicians, often within services for youth. This qualitative descriptive study explored the practice and use of theory with seven New Zealand occupational therapists who use adventure therapy, to ascertain the fit (or otherwise) between adventure therapy and occupational therapy. There are practice and philosophical elements of adventure therapy that are compatible with occupational therapy, including therapeutic use of activity. Differences include adventure therapy's purposeful use of novel activities and environments, and prescription of activities which is in contrast with occupational therapy's usual focus on familiar everyday environments and client-selected activities. This paper presents findings which explore of the value of activity as therapy, compared with talk as therapy. Whilst adventure therapy does not provide the therapist with scope to fulfil all the elements of usual occupational therapy with the client, it can be used as an approach to occupational therapy practice. The use of adventure-based activities, whilst not usual activities for occupational therapy practice, is attractive to youth. It is argued that adventure therapy is a powerful example of the use of activity as a means to an occupational end. Occupational therapists are well positioned to use adventure therapy as a component of their overall occupational therapy practice.

BACKGROUND

There is no one definition of what adventure therapy is or of who an adventure therapist is. The way the field is described is often related to the client population, the service model, and the background of the facilitator (Alvarez & Stauffer, 2001; Itin, 1998; Mossman, 2005). Settings that use adventurous activities with groups include both health and education, and it is here that theories and practices between health and education merge. Adventure therapy activities are typically situated in the outdoors and might include any number of activities such as bush walking, kayaking, climbing, high ropes courses and initiative or problem-solving games. The field can be viewed as a continuum, from mainstream schools with an emphasis on youth development (outdoor and environmental education) through to specialist mental health services (Jeffery, 2017). The model of service provision may include an hour-long session through to a multi-day journey. Generally, adventurous activities are used following experiential learning theory, and are facilitated with youth and in groups. Planned outcomes are not related to developing skills in the activity itself (so not to learn to kayak) but rather personal growth, development of intra-personal and inter-personal skills, increase in self-esteem, resilience and confidence, and a stronger sense of self-identity (Newes & Bandoroff, 2004).

The use of adventurous activities and/or the outdoor environment are used by clinicians (working alongside outdoor specialists where appropriate) as a part of overall therapy. The definition provided by Gass, Gillis, and

Russell (2012) summarises an understanding of adventure therapy in line with many practices in New Zealand: "Adventure therapy is the prescriptive use of adventure experiences provided by mental health professionals, often conducted in natural settings that kinesthetically engage clients on cognitive, affective, and behavioral levels" (p. 1). The health professions who most influenced the development of the field came from psychotherapy, social work and counselling backgrounds, resulting in an emphasis on the integration of talk-based therapies alongside the engagement with activities. Crisp (1996) identified that some occupational therapists were using adventure therapy, and that because of their training in and emphasis on the therapeutic use of activity, occupational therapy is an ideal profession to work in this field. However, the use of adventure therapy by occupational therapists is not evident in occupational therapy literature. This research therefore sought to explore occupational therapists' use of adventure therapy from theoretical, philosophical and practice perspectives, and to ascertain the fit (or otherwise) between the two fields.

METHOD

As current understanding of occupational therapists' use of adventure therapy is not evident in the literature, qualitative descriptive methodology was chosen. This provides a way of capturing the facts as they are in order to offer a comprehensive summary of practice (Sandelowski, 2000). Recruitment of research participants was through adventure therapy and occupational therapy networks in New Zealand. Eight potential participants volunteered, with seven ultimately interviewed. Participant inclusion criteria for the study was New Zealand occupational therapists who are working (or have worked within the past 10 years) and using adventure therapy in New Zealand. Ethics approval was granted by the Otago Polytechnic Ethics Committee in October 2013.

Semi-structured interviews were conducted, in line with recommended practice for qualitative descriptive methodology (Neergaard, 2009). Questions focused on ascertaining existing knowledge and experiences of participants. Interview transcriptions were thematically analysed following Field and Morse (1996) four cognitive stages: *comprehending* (understanding what is in the data), *synthesizing or decontextualizing* (understanding the norms and averages of the data), *theorising* (linking data to established theory and organizing data to show what is significant), and *re-contextualising* (linking new findings to the literature). Pilot interviews were conducted to check the effectiveness of the interview guide, modifications were made in response to feedback. Interviews were recorded and transcribed, transcripts were returned to participants for member checking. Reflexivity was addressed by critical reading of transcripts, and through thematic checking by academic colleagues in outdoor education and in occupational therapy. Gender-neutral pseudonyms were allocated and transcripts were edited to avoid identification of participants.

RESULTS

The theme presented here is the use of activity as therapy, which emerged as both familiar to participants (occupational therapists use activity therapeutically), and unfamiliar to participants (adventure therapy uses activity in a different way from usual occupational therapy practice). Participants identified that they use adventure therapy as a means to achieving an occupational outcome, and that their therapeutic use of talk differs from adventure therapy practitioners who come from counselling, psychotherapy and other talk-based therapy professions.

Activity as therapy

> *"They are both activity focused at the core of them I think."* (participant Dale)

Occupational therapists utilise occupation (or activity) as a therapeutic medium, and participants identified that adventure therapy also does this. The adventurous activities were considered as therapy, with participants understanding and endorsing the therapeutic benefits of simply engaging in the activity. Occupational therapy

and adventure therapy share a philosophical assumption that the activities individuals engage in are a determinant of health, and that engagement in activities can influence health. However, adventure therapy's use of activity as a therapeutic intervention is different from occupational therapy's broader holistic view of the individual as an occupational being. Participants' observations and the literature reviewed describe adventure therapy using prescribed unfamiliar activities in novel environments, often to provide challenge with an element of perceived risk. The intent is to allow the client to develop insight into their usual, possibly unhelpful, responses to challenge and try new ways of responding. Occupational therapy in contrast generally focuses on the client's everyday activities in familiar environments, has a more pragmatic approach and works on real life problems. In occupational therapy intervention, engagement in the activity may be viewed as therapy in itself, whereas in adventure therapy debriefing (facilitated reflection) the activity is considered an important component of the process.

Prescribed activity

> *"OT looks more at the real-life picture and is looking at developing skills for occupations more specifically whereas adventure therapy is 'OK we have done something now what have we learned from that?"* (participant Chris)

As the activities are prescribed, there is potential for clients to never do the activities again in the future, and for them to not find them meaningful or satisfying when engaged in them—this is at odds with occupational therapists' usual use of activity. However, participants understood the value of adventure therapy activities having the added dimension of often being novel for the client, with an element of challenge. This was particularly beneficial for youth who are attracted to the adventurous nature of the activities and often find this approach to therapy more accessible than talk-based therapy in an interview room. Extensive debriefing of clients' engagement in and behaviour during activities is a feature of adventure therapy that is considered important for learning. Although participants appreciated this, they considered this different from occupational therapy and recognised benefits from the activity irrespective of the debriefing phase.

Activity that is novel

> *"…so we don't just do an activity, it's about the activity as the vehicle for change."* (participant Chris)

Participants identified that therapeutic use of activity is important in adventure therapy and in occupational therapy. However, adventure therapy more often uses unfamiliar and one-off experiences, whereas occupational therapy has a focus on the every-day activities that people need or want to do in their usual lives. Although a significant difference, participants saw the benefits in using these experiences as a vehicle for change. The value of being in a novel social environment was acknowledged as Jessie articulated:

> *"… allows a chance for reflection, away from the usual lives…creating the challenge that was in a different setting so not their usual challenges that they faced when they were at home…"*

The every-day nature of activities usually used by occupational therapists was linked to clients selecting aspects of their every-day life that needed changing, and to therapists' use of skill development and education to facilitate enhanced engagement in essential activities and participation in home communities.

Talk-based therapy in adventure therapy

> *"…when we are doing something with someone we get richer info than asking someone questions in a sterile room…"* (participant Morgan)

Participants also spoke of the way engagement with activities, often shared with the therapist, creates an environment that is conducive to self-disclosure and sharing. Simply engaging in an activity alongside the therapist can assist the person to feel more comfortable engaging in conversation. This was viewed as a usual benefit of engaging in activities with a therapist, but some considered engagement in challenging activities and sharing the living environment on multi-day trips enhanced this potential for connection and relationship development.

However, the extent to which talk-based therapies were used within adventure therapy (particularly in the debriefing stage) was identified as different from usual occupational therapy. Participants described feeling under-equipped in terms of using talk as therapy and expressed belief in the value of sometimes letting the engagement in activity speak for itself.

> *"Sometimes I think yes that's great we have someone engaged, that's good, they're doing alright or well, and I think sometimes I might see the value in that whereas another clinician whose not an OT might say well we're only half way there, we've got to debrief this in a really meaningful way."* (participant Morgan)

Transferring the learning

> *"…real kind of the guts of the occupational therapy is the merging…*
> *is the transference of those lessons from the adventure and the*
> *outcomes into the everyday life."* (participant Dale).

Participants spoke of the importance of helping the client transfer associated learning back to their home environment and lifestyle. They understood that adventure therapy can help people develop skills to engage in expected roles in their usual environment as participant Chris described:

> *… to do things to improve their function and improve their ability to manage their lives and to kind of do the normal occupational roles of being a school member, a family member, a friend all or those sorts of things are the legitimate kind of roles for people at this age group… I think adventure therapy aids improvement in those roles…* (participant Chris)

Most participants spoke of the importance of helping the client transfer associated learning back to their home environment and lifestyle. Although both fields have a focus on transferring the learning back to the every-day environment, participants spoke of occupational therapy doing this much more pragmatically than adventure therapy, given that occupational therapists usually focus on the lived environment. Almost all participants incorporated the adventure therapy component of their work into overall broader mental health occupational therapy intervention.

DISCUSSION

The World Federation of Occupational Therapists (2018) defines occupational therapy as:

> …a client-centred health profession concerned with promoting health and well-being through occupation. The primary goal of occupational therapy is to enable people to participate in the activities of everyday life. (p. 4)

The occupational therapy profession clearly uses occupation (activity) both as therapy and as the outcome of therapy. Trombly (1995) helpfully describes these two aspects of occupational therapy's use of activity as occupation as end - the occupations people need to engage with in their lives, and occupation as means - the use of activities to help individuals maintain or enhance health and reach occupation goals. Gray (1998) encourages

occupational therapists to work from both ends in unison. The data show that participants were working from both perspectives. Their use of adventure therapy is *occupation as means* where challenging activities, often contrived and a one-off experience, facilitate learning skills and developing insights that will support changes in occupational identity and engagement. Their overall therapy focus may remain as *occupation as ends* where the real-life occupational roles and performance of the individual are the focus. The way that they framed activities for their clients and their emphasis on finding meaning and purpose wherever possible (despite the actual activities being novel and prescribed) enhanced their ability to use adventure activities as a means to change in overall occupational terms.

Adventure therapy has a prescriptive approach to activity, where experiences are intentionally created to meet clients' needs (Ames, 2014). Occupational therapists who are working from the contemporary paradigm (Kielhofner, 2009) may feel uncomfortable with prescribing activity in this structured way, although there are other practice areas in mental health occupational therapy where activities may be prescribed, for example art activities in an inpatient setting. Participants seemed able to support the adventure therapy process because they believed in the potential benefit of it for their clients. However, participants qualified their use of activity in adventure therapy by incorporating occupational therapy concepts, for example by selecting activities in terms of meaningfulness for the clients, or incorporating autonomy and choice which is consistent with occupational therapy's client-centred approach (Boniface & Seymour, 2012; Creek, 2014). This insistence on incorporating meaningfulness or client choice is one significant way in which the practice of some adventure therapy and occupational therapy's use of adventure may be different.

Occupational therapy's body of knowledge draws from other professions and occupational therapists are used to integrating theory from other disciplines (Creek, 2014; Kielhofner, 2009). Mental health occupational therapists tend to use approaches from psychology, particularly from positive psychology theory, such as positive cognitive behavioural therapy (Bannink, 2013), solution focused therapy (Hawkes, Marsh, & Wilgosh, 1998), mindfulness (Langer, 1989), and motivational interviewing (Miller, 2013). These approaches are client centred, have strengths focus, and seek solutions and positive change rather than being deficit focused. They are compatible with strengths-based and recovery philosophies advocated in mental health service provision in New Zealand.

These positive psychology approaches are starting to feature in adventure therapy literature (Berman & Davis-Berman, 2005; Wasserburger, 2012) and participants identified they were familiar with them. However, participants felt hindered in their application of some psychology-based therapies due to limited training and the emphasis on talk in them. The psychology approaches often use *talk as therapy*, where the spoken interaction itself is the therapy and there is considerable emphasis placed on what to say and how to say it. This contrasts with *talk within therapy*, where the interaction is for safe and effective facilitation of the activity. Despite the activity-based nature of adventure therapy, there has been considerable influence in its development and research by talk-based therapists such as counsellors and psychotherapists. This has likely influenced the emphasis on the use of *talk as therapy* within adventure therapy, where many consider the most powerful element of adventure therapy is in the debriefing stage following the activity, or the psychotherapy following the experience. As occupational therapy has such an occupation focus, both as a means and purpose of therapy, occupational therapists are less likely to use talking therapies as their primary intervention. Occupational therapists' use of adventure therapy may be an example of using the benefits of the psychology-based theories integral to adventure therapy through skilled facilitation of the activity, and through the use of activities rather than talk in the debriefing phase.

Planned outcomes from adventure therapy are in relation to the individual despite it being conducted in groups. A challenge for adventure therapy is to ensure individual needs are met and learning is transferred to the home environment. Kimball and Bacon (1993) identify that transferring learning from the experience to real life is difficult, partly due to the extreme difference between the environment of therapy and the individual's usual environment. Gass et al. (2012) proposes numerous methods to enhance transferring, however most are reliant on the individual being able to use goal setting, make metaphorical links, and the therapist knowing the individual well. Provided

occupational therapists are using the adventure therapy process as a part of usual occupational therapy, they are likely to have a good understanding of the individual's home environment and of the practical issues in their life. This enhances their capacity to facilitate transfer of learning from the adventure experience to home. Additionally, occupational therapists naturally select and utilise elements of the adventure experience to develop useful practical skills such as meal preparation on a camping trip. These are strengths in terms of facilitating the transfer of useful learning effectively.

CONCLUSION

This research found that there is fit between adventure therapy and occupational therapy. In common are the therapeutic use of activity and environment (physical and social), utilizing using the benefits of shared experiences with and between clients, groupwork and intentional facilitation of experiences that enhance coping and function in everyday life. Differences in the way that activity is used between adventure therapy and occupational therapy exist. Adventure therapy's intentional use of novel activities contrasts with occupational therapy's usual focus on everyday activities that the client needs or wants to do. In addition, adventure therapy practitioners more commonly use talk as therapy during and/or after the activity experience as an integral part of the therapy. This is to an extent that is not usual occupational therapy practice. Occupational therapists can legitimately use adventure therapy strategies within their overall occupational therapy. Their strengths in using activity therapeutically, including in debriefing, has the potential to enhance the overall experience particularly for clients who are not comfortable in talk-based therapy. Occupational therapists have a practical approach to problem solving and skill development and can utilize adventure therapy experiences to help clients learn and practice useful skills for everyday life. Their capacity to use *activity as therapy* complements the work of adventure therapy practitioners from other disciplines who primarily rely on *talk as therapy* to facilitate therapeutic benefits. In addition, a pragmatic understanding of clients' home environment enables occupational therapists to facilitate transfer of learning to the client's everyday life effectively through using adventure therapy strategies as a means to an occupational end.

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BUILDING CAPACITY AND ENTHUSIASM FOR SENIOR PERSON'S HEALTH

Kerry Davis

Tho' much is taken, much abides; and tho'
We are not now that strength which in old days
Moved earth and heaven, that which we are, we are;
One equal temper of heroic hearts,
Made weak by time and fate, but strong in will
To strive, to seek, to find and not to yield.

Alfred Lord Tennyson as cited in Baron (2002, p.17)

INTRODUCTION

Tennyson reminds us that vigour and strength may yet be found despite our advancing years. This view, however, is not widely supported in western society, where later life is more likely to be associated with frailty and a loss of relevance (Robinson & Cubit, 2005). Gerontological nursing as a specialty struggles to attract and retain a passionate and highly qualified workforce (Robinson, Andrews-Hall, & Fassett, 2007) with aged residential care (ARC) being coined the professional backwater of nursing. (Annear, Lea, & Robinson, 2014)

This discussion paper will explore some of the factors contributing to current recruitment and retention issues in aged care, with regard to the elements required for the practical and theoretical preparation of a future aged care nursing workforce. A deliberate investment in the preparation of undergraduate nursing students for the aged care workforce will be showcased, namely a new course in senior person's health (SPH) at Otago Polytechnic. It is hoped that this discussion will bring new understandings to contemporary practice and some of the elements required for the successful preparation of a future aged care nursing workforce.

THE NEW ZEALAND SENIOR

The Ministry of Health provides useful statistics about older New Zealand citizens. In addition to a growing number of older people, life expectancy now exceeds that of any previous period in history. Many of our later years will be lived out with a disability, in the context of multi-morbidity and co-existing chronic conditions (Ministry of Health, 2018). As many as one in four New Zealanders now live with multiple long-term conditions (Askerud, Jaye, McKinlay, & Doolan-Noble, 2020). In response to this changing landscape, the New Zealand Office for Seniors (2019) released a roadmap entitled 'Better later life', predicting that "by 2034, there will be 1.2 million people aged 65+ (21 percent or just over a fifth of the population)" (2019, p.9). The roadmap promotes an inclusive and connected aging population.

These compounding statistics underscore, with some urgency, the need for a comprehensive preparation of a nursing pipeline for care of seniors in many settings; rural and urban, primary and secondary care communities (Davis, 1991). We need a passionate nurse with the skills required to work with people with higher levels of dependency (Robinson et al., 2007). This includes many residents living with cognitive impairment and specialist mental health needs, including dementia.

WORKFORCE ISSUES

The COVID-19 pandemic in early 2020 had a devastating impact upon the vulnerable ARC population and the nursing workforce that serve it and reinforced the importance of a well-prepared aged-care workforce (Davis & Parmee, 2020). One issue cited as a constraint to the recruitment of nurses to gerontology is a failure to promote it as a positive career choice. Criticism includes a cultural bias in undergraduate nursing education towards acute care and acute models of health (Annear et al., 2014). Gerontology is seen as less technical than acute care, carrying negative stereotypes including heavy workloads, a task orientation, poor resourcing and limited access to education (Neville, Dickie, & Goetz, 2014). Other factors described in the literature include a perception of boredom, limited technology and professional isolation (Robinson & Abbey, 2007).

These stereotypes are problematic to the recruitment of new nurses, many of whom report negative bias towards gerontology (Annear et al., 2014). The experience of student nurses on clinical placement is critical to their future career. Some researchers claim a direct relationship between positive clinical experience and subsequent career choice (Robinson et al., 2007). Unfortunately, both positive and negative experiences have been reported by students in gerontological settings (Brynildsen, Bjork, Berntsen, & Hestetun, 2014). Students who perceive gerontological settings as inhospitable learning environments are less inclined to consider it as a future career choice (Davenport, 2018).

One constraint to successful undergraduate placement in ARC is a lack of trained preceptors and few opportunities to work alongside Registered Nurses (RN) (Davenport, 2018). There may be few RN Preceptors rostered on a given day or the RN Preceptor may be in charge and unable to work alongside the student. This is further compounded where there are staff shortages, part time workers and casualisation in the workforce (Robinson et al., 2007). In addition, many RN Preceptors are nearing retirement age (Robinson & Abbey, 2007). The Office for Seniors (2019) suggests that consideration must be given to ways of supporting the significant proportion of older workers who choose to stay in the paid workforce for social and financial reasons.

Salary or pay parity between aged care and district health board nurses is cited as contributing to the poor retention of an ARC nursing workforce (Davis, 1991; Robinson & Abbey, 2007). Competent staff may choose to leave aged care settings, attracted by the fiscal appeal of district health board counterparts. Internationally qualified nurses (IQNs) may obtain their first New Zealand RN position in ARC, only to later return to their former acute speciality.

Some research suggests that student nurses lack confidence with older people and underestimate the knowledge that is required to work in gerontology (Neville et al., 2014). Students may feel overwhelmed or ill prepared when encountering older people with behaviours of concern (Robinson & Abbey, 2007). Clearly, a deliberate investment is required to attract and retain new nurses into ARC facilities. Some Nurse Entry to Practice (NEtP) programmes are offering rotations in gerontology settings for new graduate nurses in New Zealand. The Southern District Health Board (SDHB) is one of the programmes currently supporting the transition of new nurses into aged care, in an attempt to lessen the reality shock and under-confidence often cited as accompanying this transition (Davenport, 2018).

THEORETICAL PREPARATION

Having identified several barriers to the recruitment and retention of nurses in aged care, how do we foster the skills and knowledge required by student nurses for this specialty? Koehler et al. (2016) suggest that a positive learning environment fosters a good perception of aged care nursing. Students need exposure to experts in gerontology advocating for the complex problem solving and satisfying career pathway that this specialty offers.

One area requiring complex problem solving is medication management in the older population. Emerging nurses need to understand the issues that commonly present in the older age group. Casey (2014) suggests that up to 10 percent of hospital admissions for older persons relate to adverse drug reactions (Casey, 2014). In addition, polypharmacy can occur, not surprisingly with 30 percent of New Zealanders over the age of 75 years taking five or more medications regularly (Casey, 2014). Many older New Zealanders also use over-the-counter (OTC) preparations sometimes with limited health literacy or understanding of what they are taking. It requires a team approach to ensure that medication management is appropriate in the presence of so many potential pitfalls.

The involvement of multiple specialist teams in one person's healthcare may contribute to a prescribing cascade, where medications are prescribed to manage the effects of other medications. This underscores the importance of medicines reconciliation at points of care transition where patients are especially vulnerable to transcribing or administration errors. One example of this would be a resident from an ARC facility who is admitted to hospital acutely only to have regular medications suspended without being recommenced upon discharge. Student nurses are ideally placed to make linkages between complex medication scenarios and the pharmacology knowledge, clinical assessment skills, critical thinking and inter-professional communication required for ongoing medication vigilance.

Davenport (2018) suggests that student nurses need to understand the unique contribution that each member of the wider healthcare team brings. Care teams often extend beyond the general practitioner and pharmacist to include a podiatrist, dietitian, diversional therapist and needs assessment and service coordination service. The importance of a collaborative team approach for effective aged care nursing must be explicitly taught (Annear et al., 2014).

The composition of the 'healthcare team' may look different for senior New Zealanders living in isolated or rural communities. Limitations in access to specialist services may be offset by telehealth or access to health professionals via mobile surgical services. Some populations have limited options for respite care with informal networks of care not always being recognised by funders. These complexities require nurses with high level problem-solving skills, as do older people who may delay presenting with syndromes such as delirium, incontinence or falls risk, until they can no longer clinically compensate. It may be an undiagnosed infection, a gradual loss of mobility or declining cognitive function that is the final impetus for an acute admission. All of these scenarios are rich opportunities for student learning and problem solving.

PRACTICAL PREPARATION

Where older people require assistance with personal hygiene, there needs to be a re-phrasing of this work as 'essential care' rather than 'basic care'. This practical care affords the opportunity for communication and assessment of physical and cognitive function. How do student nurses learn these skills and learn to value these skills, often gained when working with caregivers rather than RNs? "The challenge for student nurse education in aged care is to make training clinically relevant when learners often work alongside less qualified care staff" (Annear et al., 2014, p.2). Students benefit from exposure to the knowledge base of caregivers. Described as the eyes and ears of the nurses, caregivers are involved in intimate hygiene care including bathing, dressing, toileting, bowel or bladder care. The challenge of working alongside unregulated staff comes when the students witness care that is at odds with what they have learnt in their undergraduate programme (Robinson & Abbey, 2007). This

gap between theory and clinical practice may cause moral distress for students but also affords an opportunity for guided reflection and the development of self-awareness.

Undergraduate nursing programme providers have a responsibility to reinforce the value of the caregiver role within the context of an effective working relationship between RNs and caregivers. A review of direction and delegation principles prior to clinical placement can help to reduce the culture shock that many students experience on placement. Discussion should include the scope of practice and limitations of each group with reference to the Nursing Council of New Zealand (2012) Guideline Delegation of care by a registered nurse to a health care assistant. This guideline contains a decision-making process that is useful when RNs are delegating care to a caregiver or other staff member, in the interests of the recipients of care.

Effective communication includes an understanding of a shared language and tools that guide caregivers when assessing residents and escalating concerns to the RN. One tool created by the Health and Disability Commissioner demystifies the Code of Health and Disability Services Consumers' Rights (1996). Entitled *Making it easy to put the Code into Action*, this booklet is designed to assist caregivers to understand and support the rights of those in their care. Caregivers may be the first to notice early changes in a resident's condition. The 'Stop and Watch: Early Warning Tool' (Florida Atlantic University, 2014) assists caregivers in recognising clinical deterioration. The tool uses an acronym, outlining subtle everyday changes that warrant escalation and further assessment by the RN. An example might be a resident who requires an increased level of assistance when mobilising.

SENIOR PERSON'S HEALTH IN THE BN CURRICULUM

Four key issues are identified in the literature as deterring student nurses from a career in gerontology, namely societal values about aging, perceived poor working conditions, undergraduate nursing curriculum, and clinical placement (Neville et al., 2014). A new clinical course in aged care nursing for undergraduate students at Otago Polytechnic was approved for delivery in early 2020. The lecture team desired to prepare a clinical course that would prepare second-year student nurses theoretically prior to a four-week clinical placement in an aged care setting. Students would complete the course in cohorts of almost thirty at a time.

CONSULTATION AND COLLABORATION

Neville, Wright-St Claire, Healee, and Davey (Auckland University of Technology, 2016) suggest that outcomes in aged residential care are improved where strong relationships exist between key stakeholders. Consultation and collaborative relationships between nurse leaders from gerontological clinical practice and the academic provider were essential in the planning phase of the Senior Person's health course. This view was supported by Lea et al. (2014) who promote strong linkages between the clinical placement area and providers of nursing curricula as essential for learning in context and positive placement. Neville et al. (2014) recommend that academic staff enlist gerontological experts in the development, implementation and review of all curricula in gerontological nursing.

Consultation with gerontological experts included the SDHB nurse practitioner in older person's health, managers from the ARC sector and allied health colleagues from speech language therapy, occupational therapy and dietetic specialties. Sheryl Haywood, the Nurse Practitioner in older person's health at Dunedin Hospital generously invested both her clinical expertise and teaching time in the course. Haywood reinforces the high-level skill and knowledge required in the ARC sector with residents, many of whom have complex care needs, on the verge of needing hospital-level care (Manchester, 2016). Lecturers and clinicians with specialist knowledge in palliative care, disability and undergraduate medical preparation all kindly shared their perspectives. The challenge was the distillation of this collective wisdom within the constraints of the directed and self-directed learning hours allocated to the course.

THEORY LECTURES

Research suggests that lecturers with relevant knowledge and dedication towards gerontology can assist students to make linkages between clinical practice and theoretical concepts (Brynildsen et al., 2014). The new course included 20 directed hours, comprised of guest lecturers including the Nurse Practitioner in older person's health, the Otago community hospice, and solicitors presenting on aspects of competent decision making, enduring power of attorney (EPOA) and end of life choice. Content included clinical assessment, history taking, carer burden, dementia care and mental health in later life. Concepts such as elder abuse, geriatric syndrome, the palliative care movement and Te Ara Whakapiri (the last days pathway) were also introduced. The importance of medicines vigilance and the pivotal role of nurses in the prevention of adverse drug effects was reinforced through review of real errors, both acts of commission and omission. This reinforced the ideal position that nurses in ARC hold, for the initiation of medicines review, including appropriate dosages (Casey, 2014).

TARGETED EMERGING LEARNER MODULE WEEK

Preparation for clinical placement must begin prior to placement if meaningful engagement in clinical placement is to occur (Lea et al, 2014). The students enrolled in the Senior Person's health course engaged with a weeklong emerging learner module (ELM), fostering engagement with practical skills and aspects of critical thinking that are integral to gerontological practice. Each student participated in a small group simulation involving a roleplay with guided debrief. The scenario was that of an older gentleman, presenting at a rural general practice with acute delirium and other complexities. The students had to obtain a health history, complete a focused delirium assessment then ascertain what might be unfolding. It was impressive to see the students in the second block of the year complete this simulation online in a virtual space (Figure 1). Another highlight of the week was a professionalism scenario acted out by the lecturing staff. As the scenario grew in complexity, the students identified the various professional boundaries or relevant ethical codes that were at play, before suggesting possible solutions for these.
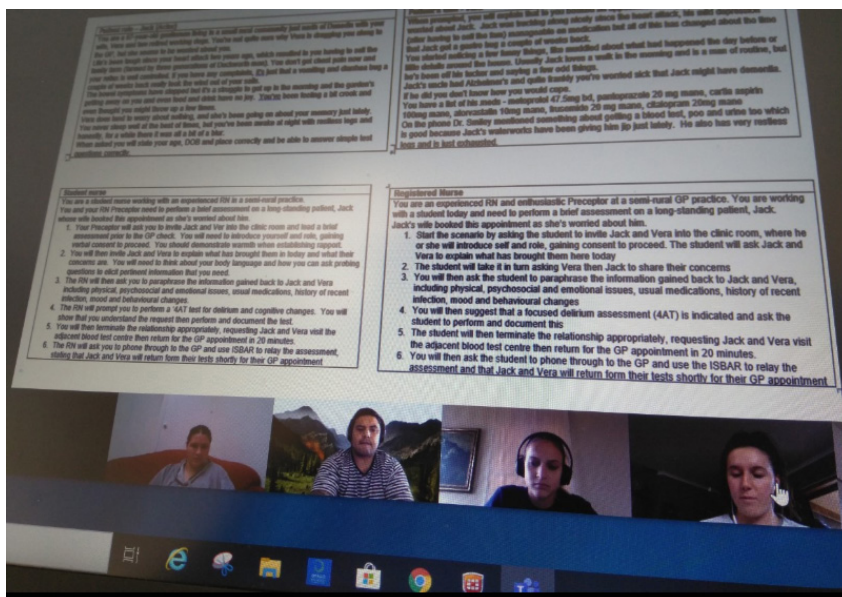

Figure 1. Virtual simulation during COVID-19 pandemic.
Source: Kerry Davis.

Society reinforces many negative stereotypes of aging, including stories of later years that are unproductive, asexual or decrepit (Robinson & Cubit, 2005). Students need to understand these myths, so that they do not negatively influence the students' perceptions about working with older people. The ELM week included a media review, where each student located and presented one media portrayal of an older person. These ranged from inspiring and positive tales of super agers to stories of the frail elderly, succumbing to COVID-19. The media review was enhanced by a local newspaper journalist who explained the factors that deem a story to be newsworthy. Enlightening discussion followed on the ability of the media to problematise and catastrophise the later years, including the use of language such as 'the grey tsunami'.

The Office for Seniors (2019) reminds us that society often views seniors as a burden, rather than worthy of respect. The lecturers sought to challenge this bias by presenting the student nurses with actual examples of vital and valued seniors, living independently or with support. The students were challenged to develop curiosity about seniors and the lives that they have lived, to inform a person-centred approach to care. Askerud et al. (2020) underscore the importance of person-centred care in New Zealand, where the person's preferences should be integrated with concepts of whanau (family) and whanaungatanga (connectedness). Students met a 91-year woman who lives independently, refining their interviewing skills with her. The reward for their efforts was a rich story of a full life and the health practices that are integral to it. An immersive learning exercise featured common household items and stories from a bygone era, set against the Second World War recordings of Vera Lynn.

Aristotle said that "Educating the mind without educating the heart is no education at all." Heart education requires empathy, seeking the perspective of another person. Oliver (2017) suggests that the nursing profession must nurture compassionate behaviours that are required in this sector. Within the SPH course, the soft skills of self-awareness and empathy were fostered using empathy scoring and an introduction to success stories from the ARC sector. Programmes that involved engagement with music, children, plants and animals were explored. A human rights approach was threaded throughout the ELM week with emphasis on respect and dignity of the person, seeking the voice and autonomy of the senior wherever possible.

Figure 2. Getting ready for the day.
Source: Kerry Davis.

A tutorial in the ELM week afforded the opportunity to interview a younger senior and apply the information gained to common assessment tools, including falls risk, pressure injury risk and continence assessment tools. Students practiced asking targeted questions and received feedback on their questioning techniques. They then integrated their strengths-based assessment into a shared plan of care.

Small group work included student rotation through three practical labs, developing the skills that are required when assisting a person with mobilising, hygiene needs or getting ready for the day (Figure 2). Skills included oral care, cleaning dentures, performing a facial shave or mobilising around the campus, with the students alternating between roles. Robinson (2005) suggests "The importance of acknowledging that young nursing students are often confronted by the experience of caring for old, wrinkled bodies in a culture where aging is feared and youth celebrated cannot be over-estimated" (p .49). In response to this challenge, the students watched a recording of a caregiver assisting a naked resident with a full shower and other hygiene needs. As a group the

students participated in a guided debrief, acknowledging their responses to naked older bodies and the awkwardness that accompanied this for some. After clinical placement, several students commented that these activities had helped to prepare them for essential hygiene cares on clinical placement (Figure 3).

Figure 3. Essential hygiene cares.
Source: Kerry Davis.

PRECEPTOR SUPPORT

Brynildsen et al. (2014) stress the importance of preparation of preceptors in clinical placement areas. A good preceptor will enhance student learning by helping students to make links between theory and practice (Robinson et al., 2007). During the planning phase of the new course, academic staff involved in SPH met with the managers of the various clinical facilities to discuss the course outline and portfolio requirements. Discussion extended to an exploration of how preceptorship models would work and a sharing of resources to support both learner and preceptor. These resources include a written preceptor feedback form, a table outlining the appropriate involvement that second-year students can have with fluid and medications and a clinical experience guide to skills, policy and learning opportunities that are appropriate for the placement.

Davenport (2018) identifies one challenge in placement in ARC settings as a lack of guidance and support from either the preceptor or the clinical lecturer. Factors that enhance clinical placement include a welcoming environment, effective orientation, an understanding of everybody's roles and the presence of supportive and knowledgeable mentors (Lea et al., 2014). Anecdotally, a lack of continuity with RN preceptors is also a factor. Discussions with each ARC facility included review of what orientation would look like. From the outset, it was apparent that the ARC sector was very committed to the success of the placements.

CLINICAL PORTFOLIO

Assessment of student learning was by clinical e-portfolio and included self-assessment against the course learning outcomes. Written feedback from clinical lecturers and preceptors was constructive, linking directly to course learning outcomes, based on the Nursing Council's competencies for Registered Nurses. Portfolio requirements included a written reflection on the impact of a psychosocial or mental health issue, seen in an older person in the student's care. Examples included loneliness, social isolation, depression or challenging behaviours relating to dementia disorders such as loss of expressive speech. In addition, students explored a support group or community agency relevant to the identified issue.

Assessment skills and critical thinking skills were developed through completion of a focused assessment, using an established tool such as a pressure injury risk, delirium scoring or a nutritional assessment. The student identified nursing diagnoses based on their assessment findings and made linkages to the person's care plan or personal plan.

CLINICAL PLACEMENT

Clinical placement involved 120 hours worked across a four-week period in an ARC hospital, rest home or dementia care facility. The COVID-19 pandemic early in 2020 interrupted placement in Block One. The national shift to Alert Level 2 necessitated a rapid and creative response with students being placed in acute care and outpatient settings, while the country was at Alert Level 2. Although many of the settings would not be considered traditional aged care placements, the students showed themselves to be agile, transferring their newly acquired senior person's health skills and knowledge to older people presenting in these settings. Each student worked with a designated preceptor to plan and achieve SMART goals, relative to seniors in that setting. SMART goals are specific, measurable, achievable, relevant and time bound.

EVALUATION

While yet in its infancy, evaluation of the evolving clinical course is essential. The student perspective of teaching (SPOT) in this clinical course has been captured, with results reflecting student satisfaction with their preparation for clinical placement. Students described the ELM week content as relevant and having prepared them especially well to communicate with older residents and perform focused clinical assessments. The activities to foster empathy received special mention.

Academic staff involved in this course have been impressed by the maturity of the students and the depth of their critique and investment in aged care placement. Some students have chosen to continue as paid caregivers after clinical placement was completed while others have chosen to explore voluntary work within the sector, for instance Aged Concern Otago's accredited visitor service (AVS), responding to loneliness and isolation in senior citizens. Academic work of the students has also received positive comment from the ARC sector. For instance, a student performed a focused assessment on a resident, involving medicines review in the context of multiple medications. The manager of the facility asked to share this work with the General Practitioner as part of an upcoming clinical review.

Further collaboration between the academic and clinical settings is planned, including a formal survey of managers from the ARC sector for their perspective on the success of the course. It is also hoped that more rural placements may be obtained, after some early successes. Planning is underway for a deliberate investment in preceptorship in the aged residential care sector. It is hoped that further engagement and investment in the staff who work alongside students on clinical placement will enhance both the learning and the clinical experience of students on placement.

CONCLUSION

Robinson and Abbey (2007) state that "Clinical training in aged care for student nurses is a key pillar for maintaining and improving care standards in the fastest growing sector of our health services" (p.6). Academic staff at Otago Polytechnic believe that the new course in senior person's health emphasizes the value of older New Zealanders and builds capacity while inspiring the future nursing workforce who will care for senior New Zealanders in a variety of settings. Each older New Zealander holds a unique story and deserves care that is delivered with dignity and specialist knowledge. The teaching team are champions for gerontological nursing in all of its magnificent complexity. To finish where we began, with 'Ulysses' and the words of Alfred Lord Tennyson, as cited in Baron (2002):

> *Old age hath yet his honour and his toil;*
> *Death closes all: but something ere the end,*
> *Some work of noble note, may yet be done,*
> *Not unbecoming men that strove with Gods. (p.16)*

Acknowledgment

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NURSE RESILIENCE IN ACUTE CLINICAL SETTINGS

Kaitlin Perry

INTRODUCTION

Nurses practising in New Zealand (NZ) face difficult, ever-changing and dynamic challenges in the workplace (New Zealand Nurses Organisation [NZNO], 2020). These include an increasing population, an ageing nursing workforce, local and global health care environments that are in a state of continuous change, a tightening economic climate and unpredictability in the nursing workforce (NZNO, 2020). In these times, a lack of nurse resilience can result in burnout, moral distress and high job turnover. Nurse burnout can result in detrimental health outcomes, such as drug and alcohol abuse and psychological distress (Vahey, Aiken, Sloane, Clarke, & Vargas, 2004). These negative effects highlight the importance of developing resilience as a nurse, in order to achieve improved health outcomes for all.

In this paper, I focus on five major themes which appear repeatedly throughout the literature. While existing literature regarding the creation of resilience represents these themes in a variety of contexts, the content of this paper will primarily focus on their application to nurse resilience in the acute clinical setting.

CLINICAL ISSUE

Resilience is a strategy for overcoming challenges in the nursing profession (Yilmaz, 2017). Lowe (2013) suggests that nurses who adopt resilient characteristics reduce the incidence of stress and burnout while increasing the quality of patient care and inspiring better health outcomes. Aburn, Gott, and Hoare (2016) define resilience as the ability of a person to effectively cope or bounce back despite adverse conditions. Furthermore, Connor (2006) suggests that resilience alleviates moral distress and burnout throughout the nursing profession. Complementary to this, Epstein, Burns, and Conlon (2010) indicate that increased stress levels can cause negative effects such as burnout, moral distress, mental health issues and substance abuse as nurses in the acute clinical setting make an effort to practise in such a way that aligns with their personal and professional values.

A recent clinical placement in an acute setting heightened my awareness of how practising as a nurse is not only emotionally draining, but physically demanding as well. Resilience is an extremely relevant issue in nursing, and it enables a sustainable nursing profession. Observing burnout and high stress levels among nurses, and the impact this has on the level of care patients receive, made me think about what makes a nurse resilient and the important role resilience plays in nursing care. So, how can nurse resilience be enhanced in the acute clinical setting?

BACKGROUND

Woods, Rodgers, Towers, and La Grow (2014) conducted a national New Zealand survey and found that moral distress is highly prevalent in NZ nurses. This can be a result of having to deliver less than optimal care due to decisions made by management, which can cause patients to suffer in terms of their care. Woods et al. (2014) also concluded that other factors which can create moral distress are working with nurses who are not competent and witnessing reduced quality of care due to poor communication within the nursing workforce. The World Health Organisation (WHO) reinforce this view by noting that, currently, there is an increased demand and a decreased supply of nurses; it is predicted there will be a global issue of clinical staff shortages with a predicted shortage of 2.4 million health care professionals, with nurses being the largest proportion of the deficit (WHO, 2006).

Evidence and Findings

Resilience assists individuals to lessen burnout and moral distress (Rushton et al., 2015). Various intervention studies (Rushton et al., 2015; Tabakakis et al., 2019; Yilmaz, 2017) show strategies that build resilience. The following five themes were common to the literature around ways of developing resilience in nurses in the clinical setting: self-efficacy, coping mechanisms, mindfulness, support, and optimism.

Self-efficacy

Rushton et al. (2015) emphasise that resilience can be improved through self-efficacy. A common definition of self-efficacy is a person's belief in their own ability to perform a particular task (Garcia-Dia et al., 2013). In the context of nursing, Gillespie, Chaboyer, and Wallis (2007) inform the reader that self-efficacy is confidence in knowledge as well as decision-making in everyday practice. To produce a stable workforce in New Zealand with nurses who remain in the job and have the self-efficacy to handle significant stress, resilience training should be implemented as a component in the education of nurses.

Coping mechanisms

McAllister and McKinnon (2009) suggest that coping mechanisms increase resilience and regulate emotions, therefore reducing burnout and its consequences. Coping mechanisms can be viewed as protective factors that are necessary for surviving stressful or traumatic experiences, as they assist people to withstand challenges and grow from them (McAllister & McKinnon, 2009). Lim, Bogossian, and Ahern (2010) identified a variety of coping strategies including problem solving, seeking social support, self-controlling, escape-avoidance and distancing. Coping skills are able to be learned and strengthened through educational experiences. A range of coping skills that can be put into practice during challenging times, enables a more resilient individual (McAllister & McKinnon, 2009). This idea is supported by Lowe (2013), who expressed the opinion that improved well-being and positive coping skills are shown to be effective in reducing stress levels and fostering characteristics of resilience. Kornhaber and Wilson (2011), along with Glass and Rose (2008), hypothesised that formal supports, for instance professional counselling and clinical supervision, have shown to be successful coping strategies and ways of managing workplace adversity, additionally contributing to mental health and wellbeing.

Mindfulness

Badu et al. (2020) identified that mindfulness is particularly important to all nurses. Through mindfulness, the nurse is in a position to separate themselves from highly stimulating emotional circumstances, as it allows them to reflect, learn and move on. Mindfulness can be viewed as a necessary construct when building and maintaining resilience (Cusack et al., 2016). It is a characteristic that involves focusing completely on an experience in an understanding or non-judgemental way. Based on the ideas of Grafton, Gillespie, and Henderson (2010), developing a workforce that is strong and resilient can be directly linked to the improvement of mindfulness.

Support

As explained by Lowe (2013), a supportive and healthy work environment for nurses will foster resilience and reduce the impact of stress. Supportive social networks contribute to the regulation of the effects of challenging work environments and have been proven to be features of resilient nurses. Van Heugten (2012) explains how collaborating with colleagues and building strong relationships have been shown to reduce risk factors associated with demanding situations, such as the risk for depression, anxiety and post-traumatic stress disorder. Workplaces where nurses are inspired to develop trust, faith and hope with one another, assist with cultivating caring relationships. Hart, Brannan, and De Chesnay (2012) concluded that human interaction and deep connections with other individuals were important factors that contributed to an individual's development of resilience.

Optimism

As outlined by Hart et al. (2012), optimism and a hopeful outlook are widespread characteristics of resilient nurses. Nurses who have the ability to look forward to a future time when the current situation may be altered, were correlated with increased resilience (Hart et al., 2012). A cross-sectional survey conducted by Rushton et al. (2015) found that nurses recognised influences such as spirituality and optimism as ways to cope with stressful work environments. Similar to optimism, hope was also found to be a key influence of resilience, and nurses who felt a sense of hope were able to gain meaning and felt as though they had purpose in life (Rushton et al., 2015). The results from this study organised by Rushton et al. (2015) also suggested that hope fuels work satisfaction, and nurses who had higher levels of hope scored higher on personal achievement. Given that hope is able to decrease moral distress, enhance resilience and avoid burnout, then fostering a nurse's capacity for hope may be the solution to the harmful effects of moral distress.

RECOMMENDATIONS

The following three recommendations have been developed in an attempt to enhance nurse resilience in the acute clinical setting:

Recommendation One: incorporate resilience education within undergraduate health professional programmes. Resilience is a concept that has been somewhat ignored in the education of health professionals such as nurses. Resilience has been shown to directly relate to the wellbeing of an individual (McAllister & McKinnon, 2009). The five themes discussed above are all intrapersonal qualities that are able to be learned and expanded on through education. Developing their character, students should be able to explore their own values and beliefs in order to understand their professional identity. Students of health professional programmes should focus on coping and strength development where they articulate and are able to answer questions around how to be prepared for the workforce, and how to succeed and cope in unknown situations. Students will become future leaders; therefore, they need to learn how to be leaders for change and cope with work challenges acting in a respectful, engaging, and collaborative way (McAllister & McKinnon, 2009).

Recommendation Two: allow opportunities for workers to reflect upon and learn from experiences in practice, with other health professionals. Using strategies such as debriefing, self-reflection and validation can improve the resilience of nurses. Initiatives such as professional skills development, professional attributes and supportive workplace environments also build resilience (Cusack et al., 2016; Yilmaz, 2017). Exposure to positive role models who can enlighten other staff members on how to thrive in acute healthcare settings would be an important and valuable teaching and learning opportunity (McAllister & McKinnon, 2009). Clinicians who demonstrate resilience and post-traumatic growth have the potential to be inspiring role models. Therefore, there are benefits in communicating insights from adversity not only with students and new graduates, but also with lifelong learners (McAllister & McKinnon, 2009). Interventions such as clinical supervision allow individuals to share personal nursing experience and understand how to cope with difficulties in the nursing workplace,

as well as recognising and being educated on the different strategies, such as expression, talking and problem solving (McAllister & McKinnon, 2009). Other initiatives such as professional counselling, an employee assistance programme or clinical supervision are effective methods for managing workplace adversity (Badu et al., 2020).

Recommendation Three: staff should be provided with environmental support which includes facilities such as a quiet room where staff have the opportunity to wind down, debrief, or pray. This would enable nurses in these settings to participate in self-care activities within the acute setting, encouraging them to develop and strengthen personal and professional resilience (Grafton et al., 2010). This would also provide an opportunity for further reflection, enabling the nurse to advance in their journey of resilience (Best, 2019). As emphasised by Best (2019), being able to manage one's own personal health and well-being is just as important as caring for the patient.

CONCLUSION

In this paper I have provided an up-to-date overview of the concept of resilience for nurses working within the acute clinical setting. Working in stressful environments with high patient acuity, registered nurses are prone to burnout, moral distress and emotional exhaustion. Awareness of factors that build resilience, such as the five themes which emerged from the literature, mitigates the detrimental effects of the current health care environment, thus developing a strong nursing workforce. Incorporation of further education for nursing students and nurses in the workforce about the importance of resilience and developing their own approaches within the five strategies to enhance resilience, in the context of current challenges in the New Zealand nursing workforce, should help to combat the nursing shortage by strengthening those currently employed.

Kaitlin Perry is a third-year Nursing student at Otago Polytechnic. This paper was the result of an exploration of ways to keep nurses in the profession by building resilience. She has a passion for caring for others and loves how dynamic and rewarding the nursing profession is.

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INAPPROPRIATE ATTENDERS:
MOTIVES BEHIND SEEKING EMERGENCY CARE

Hashim Mir

INTRODUCTION

Overuse of the Emergency Department (ED) places an unnecessary workload on staff that compromises the quality of patient care and is largely avoidable with better general practitioner (GP) use. This paper aims to evaluate the motives behind patients self-referring to the ED with non-urgent complaints as a substitution for seeking treatment from a GP. A collation of the current and existing New Zealand (NZ) research with support from international sources was reviewed and found four major motives behind inappropriate ED attendance: poor GP accessibility, misperception of health concerns, financial considerations, and dissatisfaction with GPs. The role of the NZ Government, EDs, and GPs have room for further development to combat this problem. Through collaboration, these three agents of healthcare have the potential to improve appropriate use of ED and GP services through education, promoting accessibility, and improving trust in GPs.

BACKGROUND

Emergency Departments are global essential services that provide immediate emergent and urgent care at the point of access (McHale et al., 2013). The term 'inappropriate attenders' describes non-urgent patients that present for diagnosis and treatment that are unlikely to require admission which could have been managed in a primary healthcare setting (McHale et al., 2013). However, defining what is an inappropriate or unnecessary presentation is difficult. There are currently no national or international standards for appropriate attending to ED and creating one is under contention (Haltiwanger, Pines, & Martin, 2006; Kraaijvanger, van Leeuwen, Rijpsma, & Edwards, 2016; Richardson, 1999, Richardson, 2012; Thornton, Fogarty, Jones, & Ragaban, Simpson, 2014). There has been both national and international concern as the prevalence of inappropriate attenders has been increasing, due to the strain it puts on the ED system. This has potential negative outcomes on the quality of patient care, ED capacity, and management of patient flow. This strain takes a serious toll on ED staff, resources, and patient satisfaction (Haltiwanger, Pines, & Martin, 2006; Richardson, 1999). The Ministry of Health in New Zealand has historically accepted the notion that increasing demand on ED services may be partially due to inappropriate attenders and suggested that this is up between 16 to 30 percent of all ED attendees (Ministry of Health, 1999). There has been an increase in ED use at least once in the last twelve months from 8.5 percent in 2006/07 to 15 percent in 2018/19 (Ministry of Health, 2019) which amounts to 281,985 people (Statistics New Zealand, 2018). Although this would not be entirely due to inappropriate attenders, statistics show that many ED attendees are non-urgent and regularly do not require specific hospital treatment (Vecchio, Davies, & Rohde, 2018). So why do they come? It is essential to investigate the reasons that patients self-refer to ED for non-urgent medical needs instead of seeking a GP. Strategies aimed to reduce the ED utilisation should target these inappropriate attenders who choose to visit the ED directly, bypassing primary care services (Kraaijvanger et al., 2016). Whilst inappropriate attenders may have only a small influence on waiting times for emergent and urgent patients, even a small number of inappropriate attenders contributes to overcrowding (Bezzina, Smith, Cromwell, & Eagar,

2005; Richardson, Ardagh, & Hider, 2006). Inappropriate attenders can prohibit access by increasing patient load, lowering the availability of beds, creating a shortfall in resources to meet patient needs, and creating a challenging environment to work in, ultimately reducing the overall number of patients for whom the ED can provide care (Chen, Lin, Han, Hsieh, Wu, et al., 2018).

DISCUSSION

Availability

Extensive research shows that increased availability and accessibility to a GP or after-hours services are associated with significant decreases in ED utilisation (Kraaijvanger et al., 2016; Lowthian et al., 2011; Vecchio, Davies, & Rohde, 2018). A study conducted in NZ by Thornton, Fogarty, Jones, Ragaban, & Simpson (2014) out of Middlemore Hospital looked at the motives behind non-urgent patients (within the Australasian triage scale categories of 3, 4, and 5) self-referring to Middlemore Hospital ED rather than accessing a primary healthcare service. On admittance, patients were questioned as to whether they had attempted to contact their GP that day; 25.2 percent of patients confirmed they did either by phone or in person. From this group, 73.3 percent were instructed by the GP to attend Middlemore Hospital ED, 20.2 percent were told the practice was too busy to see them that day. Of the remaining, 74.8 percent did not contact their GP, 27.4 percent of these believed their condition was too urgent to wait for a GP, and a further 22.1 percent stated their GP was closed. The cost was indicated as a factor in their decision by 1.9 percent of patients. 31.2 percent gave various reasons for not contacting their GP such as ED being their preferred choice at the time (Thornton, 2014). These reasons are consistent with previous NZ studies (Begley et al., 2011; Khan, Glazier, Moineddin, & Schull, 2011; Schneider, Whitehead, LoBiondo-Wood, & Haber, 2013) with the most common being the patient's perception that the ED was the most appropriate place to go based on their condition at the time (32 percent). The next most common being a lack of access to the GP. Patients citing lack of GP access as their reason for self-referring were higher during after-hours (28.7 percent) compared with during working hours (14 percent), as GPs would more likely be open during the day (Thornton, 2014).

After Hours Health Care

A study conducted in the Netherlands showed that patients have difficulties accessing an appointment with a GP within a timely manner, encouraging them to self-refer to the ED. This study also stated that almost a fifth of the self-referrals to the ED are due to the major national issue of unavailable GP appointments, especially after hours. The GP is usually only open during working hours, whereas the ED is a 24-hour service, therefore the ED is deemed a lot more accessible and appropriate for those with demanding work schedules. This may aid the expectation that patients can be seen sooner in the ED than at the GP. Similar results are present in Kraaijvanger, Rijpsma, van Leeuwen, and Edwards (2015) and Wachelder et al. (2017). Other international studies show that the high use of ED services suggests problems with GP accessibility, affordability and inability to provide an appropriate diagnosis (Begley et al, 2011; Khan et al, 2011; Schneider et al, 2013). Unavailability of a GP is an important factor in the use of the ED, as patients with non-urgent complaints that reside near emergency facilities tend to treat these as an after-hours GP substitute (Richardson, 2012; Thornton, 2014).

Financial Considerations

The high cost of after-hours services in the community and co-payments in primary care, compared to the free ED services is a contributor to choosing the ED above primary care (Kraaijvanger et al., 2016; Thornton, 2014). Investigations into the relationship between socioeconomic status (SES) and GP utilisation in NZ have found that people living in deprived areas, those with lower than average incomes and those with low SES, generally have higher engagement with GP services than those with a higher income (Scott, Marwick, & Crampton. 2003). Studies have found low SES patients visit the GP more than high SES patients (Loh, et al., 2015; Scott et al.,

2003; Wachelder, et al 2017). Although high GP attendance is considered a preventative measure for decreasing inappropriate attenders, it is important to note that low SES patients also use the ED services more regularly and are admitted into the hospital more than those with high SES. The high ED attendance of low SES groups cannot be fully accounted for by inappropriate attenders and is more closely linked with the adverse health outcomes of living in poverty.

Recurrent Costs of Ongoing Healthcare

Health inequalities, lower life expectancy, and more frequent complex and chronic conditions have already been strongly associated with low SES as an important determinant of health compared with those who are privileged (Agardh, Allebeck, Hallqvist, Moradi, & Sidorchuk, 2011; Clark, DesMeules, Luo, Duncan, & Weilgosz, 2009; Saydah & Lochner, 2010; Stringhini et al., 2017; Janati, Matlabi, Allahverdipour, Gholizadeh, & Abdollahi, 2011). Furthermore, these vulnerable low SES groups are more likely to bypass their GP due to postponing seeking care for too long because of the cost of regular GP appointments. Many described situations where they had to delay or avoid seeking care due to cost (Arpey, Gaglioti, & Rosenbaum, 2017). This predictably caused a deterioration of their health, worsening their condition which resulted in self-referral to the ED. This demonstrates that 'lack of primary care access' does not necessarily mean a lack of available appointments—for socioeconomically deprived individuals, recurrent costs prohibit access to essential ongoing healthcare. Patients who are socioeconomically deprived are marginalised, vulnerable, and have high health needs which require complex consultations (Loh et al, 2015).

Exaggeration of Cost

A study by Jones and Thornton (2013) showed that the cost of primary healthcare as a major factor for increasing ED attendance is exaggerated in NZ. There were 11 articles in Jones and Thornton's (2013) review with a total of 5850 participants with minor illness or injuries who were asked a direct question about cost. Only 119 patients (2 percent) cited cost being a reason for attending ED instead of a GP. This is extremely similarity to the 1.9 percent found in a similar study by Thornton (2014). These studies suggest that cost may be a less common consideration in NZ compared with other countries. However, although two percent of the overall population may be low, it could be assumed that this is mostly comprised of the most vulnerable populations in the country (Loh, et al, 2015), such as low SES individuals. The inability of this proportion of the population to access primary healthcare should not be overlooked.

Misconception of Health Concerns

Data has suggested that the term 'Emergency Department' is interpreted differently between medical staff and patients (Carret, Fassa, & Domingues, 2009; Rocovich & Patel, 2012). A significant issue faced by the ED is the patient's inappropriate or incorrect perception of their condition's severity. Due to the appropriateness of presentation usually being defined by the medical staff's perspective, there could be a gap of knowledge in the patients understanding of when urgent care is necessary (Lowthian et al., 2011). Previous international studies are in agreement that there are difficulties for patients to accurately perceive and determine the urgency of their condition (Burchaard, Oikonomoul, Soost, Zoremba, & Graw, 2019; Doran et al., 2014; Penson, Coleman, Mason, & Nicholl, 2012). Burchaard et al. (2019) compared how medical staff assess the condition of a patient who self-referred to ED with how those patients self-assess their condition. Interestingly, 63.1 percent of the patients thought that their condition required urgent diagnosis and treatment. Comparably, the ED staff believed that 28.0 percentage of the self-referred patients had appropriate conditions for the ED. Nearly 80 percent of patients had mis-evaluated the severity of their condition. Although 74 percent did not believe that their condition could have been managed by a GP, the ED staff stated that the GP could have helped with a significant proportion of the health concerns presented. Interestingly, only 2.4 percent of patients expected to be admitted to the hospital as an inpatient for additional treatment, indicating ED is perceived as predominantly a rapid treatment outpatient

facility of the hospital. Similar findings from other international hospitals, support this idea showing most patients will consider their medical problems as urgent while medical staff will evaluate them as non-urgent (Tiller, Herzog, Kluttig, & Haerting, 2015; Mason, Tarle, Osibin, Kinfu, & Kaigler, 2014; Redstone, Vancura, Barry, & Kutner, 2008).

Seeking Advanced Diagnostic Investigations

Lowthian et al. (2011) found that preferential attendance of the ED in NZ, Europe, and Australia is often motivated by the perception of the ED as the superior healthcare provider. The ED's accessibility and convenience encourage it to be perceived as a 'one-stop-shop' which can provide total care along with access to advanced diagnostic tools and specialists. This is supported by a NZ consumer survey carried out by Hutt Hospital ED to identify motives for seeking emergency care (Lewis, 1988). Fifty percent of participants in the study cited that they thought that the ED was the most appropriate place for them, largely due to the possibility or expectation of receiving advanced diagnostic investigations such as radiological imaging and laboratory tests. Additionally, 24 percent cited availability as a reason, and a further 16 percent cited accessibility (Lewis, 1988). Similar results were found in a Dutch study by Brasseur et al. (2019) where 51.3 percent of the self-referrals believed that the ED was appropriate for their current condition due to possessing the right resources (advanced diagnostic investigations) and an additional 23.8 percent citing accessibility to care. This again expresses that patients believe that the ED is the only place where they can access the best treatment.

Dissatisfaction with General Practitioner

The findings stated above show that patients can be attracted to the accessibility of the ED alongside the perception that it possesses superior resources and quality of care, but this also speaks to the public perception of the GP. Reports both within NZ and internationally show that many patients believe that their symptoms were too severe for a GP to handle and that their condition was outside the scope of a GP's training and management capability. This can lead to a distrust in the abilities of a GP and encourages GP avoidance in preference of the ED (Kraaijvanger, et al., 2015; Lewis, 1988). Patients also commonly report that they have more trust in the ED than the GP services (Doran et al., 2014; Kraaijvanger et al., 2016). Knowing that all possible advanced diagnostic investigations can be done within the ED, it could be deemed rational to avoid the GP to self-refer to the ED, potentially reducing cost, time and effort. GP appointment time may contribute to the perception that the GP is not able to sufficiently manage a patient's health problem. General Practitioners suggest that short consultations compromise their ability to provide adequate care, reducing the range of services that can be provided which produce poorer health outcomes for patients (Irving, Neves, & Dambha-Miller, 2017). The normal allocated length of a NZ GP consultation is considered to be fifteen minutes. Osborn et al. (2015) show that GPs in Australia, Canada, France, Germany, the Netherlands, Norway, Sweden, the UK, the USA, and NZ report that over one third of all GPs are dissatisfied with time allocated per patient. Short consultation length may be assisting the misconception that GPs cannot manage complex conditions. Patients with non-urgent health conditions may decide to substitute inaccessible GP services with the ED, even though primary care does have the provisions to manage patients within the Australasian triage scale $3 - 5$ (Thornton, 2014; Vecchio, Davies & Rohde, 2018).

Unmet Needs

Information collected from the 2018/19 NZ Health Survey has found many people have had negative experiences with primary healthcare services resulting in unfavourable outcomes.The three largest affecting issues that are 'experienced include one or more unmet needs for primary healthcare,' 'unable to get an appointment within 24 hours,' and 'does not have definite confidence and trust in GP.' If a large percent of the population are not getting what they need from the GP due to any of the six reasons listed, it may be increasing the perception that GPs are not the place to go for serious health concerns. This may cause people to look to the ED as a preferred substitute, or even delay or avoid seeking healthcare entirely.

RECOMMENDATIONS

This section provides recommendations to resolve or lessen the extent of an excessive non-urgent patient load in the ED at the operational level between government, emergency department and primary healthcare services.

RELATIONSHIP

- Efficient direction of inappropriate attenders.
- Education on the use of the Emergency Department.

Government

RELATIONSHIP

- Education on the use of General practitioners.
- Initiatives to prevent exacerbation of common medical problems.
- Extending accessibility of General practitioner.

Collaboration recommendations of three agents of healthcare

Emergency Department

Primary care services

RELATIONSHIP

- Integration and collaboration of the two services for easier referrals to the appropriate service.

Figure 1. Collaboration of three agents of healthcare. Source: Author.

1. Government and Emergency Department

NZ Government and EDs need to collaborate to accurately and appropriately provide diagnosis, treatment, and care to patients that require it. An efficient and defined method to manoeuvre inappropriate attenders who present to the ED needs to be developed. Though it is difficult to define what an inappropriate or necessary presentation to ED is, it is important to bridge the gap between patient and healthcare worker understanding of urgency in order to lessen the volume of non-urgent patient presentations (Kraaijvanger et al., 2016; Lowthian, et al., 2011). It is also important to bridge the gap between patient and clinician understanding of 'urgency' of a heath concern with the aim of lessening the volume of non-urgent patient presentations (Kraaijvanger et al., 2016; Lowthian, et al., 2011). Standardisation of the definition of appropriate attendance distinguishing between urgent and non-urgent patients is important in differentiating care requirements for patients and allocating appropriate best care to all who need it. Education around self-triaging could be introduced to increase the health literacy of the public. A triage system for public use could direct them to the appropriate setting to receive care for their condition. The collaboration between the Government and the ED could produce structure and consistency for healthcare workers who encounter patients with both urgent and non-urgent medical problems to best allocate healthcare resources and give all patients the care that they need.

2. Government and Primary Care Services

The reduction of inappropriate attenders presenting to the ED is heavily subject to the availability of primary healthcare services. The NZ Government and GP services need to collaborate to reduce inappropriate attenders by providing educational interventions to enhance the public's health literacy, specifically in regards to the correct use of both the GP and ED. The public needs to understand when it is necessary to seek emergency care and which conditions a GP can manage. Initiatives like this have been attempted in NZ before at national, district health board, and primary healthcare levels, but a larger emphasis is required (Ministry of Health, 2016; Waitemata District Health Board, n.d.; Riccarton Clinic, 2020). This would largely involve bolstering confidence in GPs through extending consultation time, better access and availability to GP appointments and education of the scope of a GP's capabilities including their ability to manage patients who fall in the Australasian triage scale 3–5 (Lewis, 1988, Richardson, 2012; Thornton, 2014). Increasing public trust in the GP is essential to encourage patients to use primary healthcare before the ED or to avoid treatment entirely.

Multiple initiatives have been piloted with a specific focus on the prevention of common non-urgent medical problems exacerbating to need emergency care. These include the 'Chronic Care Management Programme' (Richardson, 2012), 'extended care' (Corwin et al., 2005) and 'Primary Care Options for Acute Care' (Aish, Didsbury, Cressey, Grigor, & Gribben, 2003).

Finally, government resources being funnelled into extending GP availability and accessibility is essential to decrease inappropriate attenders in the ED (Kraaijvanger et al., 2016; Lowthian et al., 2011; Vecchio, Davies, & Rohde, 2018). Keeping GPs open outside of working hours and reducing the cost could reduce a significant barrier for low SES working individuals.

3. Emergency Department and Primary Care Services

Integration of EDs and after-hours primary care services in Norway show a significant reduction of 13 to 22 percent of overall ED use. Seventy-five percent of all self-referred patients were seen by a hospital GP, creating more time for emergency staff to focus on higher urgency patients and improving quality of care for all (Smits et al., 2017). A hospital-based primary care clinic that receives diverted patients from the ED could reduce the impact of inappropriate attenders on the ED. To avoid this type of service becoming overrun, it is important to prioritise preventative measures as described in the previous recommendations.

Establishing alternative services within the ED could differentiate acute care from primary care within the ED. To support patients accessing the correct services, an ED-based GP or primary care nurse practitioner seeing non-urgent patients is a cost-effective method to considerably lower patient processing time and considerably increase patient satisfaction with no statistically significant difference to incorrect diagnoses (Bosmans, 2012; Richardson, 2012).

CONCLUSION

The problem of inappropriate attenders at the ED is complex and integrates many different factors ranging from SES to health literacy disparities between the healthcare field and the general public. This literature review brought into light the vast variety of reasons that patient's access the ED for non-urgent medical problems that a GP could have treated. It highlights that from the patient's perspective, inappropriate attenders to the ED is understandable and even logical at times. However, regardless of intention, inappropriate attenders place an unnecessary burden on staff, hospital resources, and the quality of care for all patients. A superficial solution such as turning away inappropriate attenders at the ED would offer little benefit to the overall health of the country. Innovation through collaboration of the NZ Government, EDs, and GP services could drastically reduce

the burden of inappropriate attenders. At the ED, healthcare staff need a direct and systematic way to treat both inappropriate and appropriate attenders, at the GP more preventative measures can be taken, while the Government oversees and supports these procedures. Promotion of health literacy, education of the abilities and purposes of different facets of the healthcare system, and expanding GP availability and accessibility (especially for vulnerable populations with low SES, limited non-working hours, and chronic health concerns) offers a much more holistic long-term approach. Change is in the hands of the operational facets of healthcare.

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TELEHEALTH: OVERCOMING BARRIERS FOR RURAL HEALTHCARE

Sian Sunckell

INTRODUCTION

Rural populations face many constraints when trying to access health services in New Zealand. There is a prominent divide between rural and urban, and what services are easily accessible and available (Ministry of Health, 2004). As technology develops, it opens doors for health professionals to work with people, communities and colleagues in new ways. Technology has provided a way to combat many of the major barriers that rural populations face in relation to health services. Telehealth allows for increased collaboration with health consumers, their primary practices and specialists, as well as allowing for inter professional collaboration between rural and urban health professionals. This article will review how telehealth has been implanted in rural contexts so far, the effectiveness of the services provided, and the opportunities for further development.

Telehealth is the use of information and communication technology (ICT) to provide healthcare from a different location. The name originates from the Greek word 'tele', which means distant (Lucas, Day, & Honey, 2016). Telehealth uses technology including telephone, internet, and video calls to provide services to clients that they would otherwise not be able to access. The use of telehealth has been slowly increasing across many clinical areas. It has overcome barriers for rural health consumers although it still holds some barriers of its own in order to be used effectively (Sanderson, 2018).

BACKGROUND

In New Zealand, 25 percent of the population live in small towns or rural areas (Ministry of Health, 2019). There is not one definition of what a rural area is. However, they are usually defined as small populations that are not included within urban boundaries. Rural areas are often geographically isolated and removed from general services (Statistics New Zealand, n.d.).

In 2004, the Ministry of Health found that rural primary healthcare providers had high numbers of patients from low socio-economic areas, patients with community service cards as well as a high number of Māori compared to non-rural areas (Ministry of Health, 2004). Migration between rural and urban areas has changed the dynamics of rural areas and diversified these populations (Statistics New Zealand, n.d.). This diverse range of people means that health providers are having to deal with an array of different health needs. Therefore, rural populations still require specialist services that are not always accessible to them.

Living in a geographically isolated rural area brings many barriers to everyday life as well as when trying to access appropriate health care. A small population over a large area means there are less services available (Kerr & Norris, 2004). The services that are available tend to be generic with limited specialist options. Therefore rural people are required to travel further to access appropriate care (Kerr & Norris, 2004; Statistics New Zealand, n.d.).

Having to travel further to access appropriate care means an increase in travel time and travel costs. An example of this is that diabetic children living in rural Central Otago were having to travel six to eight hours return to go to a half hour specialist appointment in Dunedin in order to access the care they needed (Ministry of Health, 2016a). Telehealth was implemented and used effectively to allow specialists in Dunedin to consult and collaborate with clients from a distance.

The New Zealand Health Strategy identifies telehealth as a resource worth developing. The Strategy aims to strengthen telehealth in New Zealand and increase its availability to enable people to stay closer to home for longer (Ministry of Health, 2016b). When the Strategy was released in 2016, one of the goals was to have a wide range of telehealth services available throughout the country by 2020 (Ministry of Health, 2016a). It also highlights the need to diversify our health services to remove health inequities among New Zealanders (Ministry of health, 2016a). This comes from the public's increased expectation that they will be provided with equitable care regardless of location and circumstance (Lucas et al., 2016; Wright & Honey, 2016).

DISCUSSION

The positive impacts that telehealth has on a range of clinical setting are important to recognise. Telehealth has the ability to connect people in many different ways and forms, and allows for greater collaboration between patient, family, health professionals and support staff where it may not have been possible before. Telehealth has also shown that it can empower patients to take an active role in their own health which is essential for keeping people well for longer. This will reduce the pressure on health professionals and lead to a healthier community. The Ministry of Health (2016a) recognises that telehealth has the ability to empower people thus leading to greater, more informed choices around their health.

It is evident from this literature that when used appropriately, telehealth effectively facilitates collaboration between health providers and consumers. It has proven to promote and encourage health consumers to learn and better manage their own health by allowing them to feel safe, reassured and confident while staying connected to health providers at a distance. This in turn allows for patients to stay closer to home for longer, a key point in the Health Strategy (Ministry of Health, 2016a).

The most frequently reoccurring theme emerging from the literature was the ability telehealth has to support medical staff in remote areas. Wright and Honey (2016), and O'Connor (2013a) both found that health professionals felt supported when using telehealth to collaborate with other health professionals. Telehealth has proven advantageous as it has the ability to support rural staff and lessen the professional isolation that comes with remote health services. Frequent interactions with specialist services gives confidence to rural health professionals as they feel they have the support and assistance from others with a wide range of knowledge (O'Connor, 2013a). This therefore helping the retention of medical staff in remote, isolated areas (Banbury, Roots, & Nancarrow, 2014). This is important as rural areas struggle to obtain and retain medical staff. Telehealth has the potential to be adapted and developed to facilitate further collaboration with and between remote and urban areas. It could be an excellent resource to consider when looking into the retention of rural staff.

A nurse from Ashburton Hospital talks about how telehealth is used to collaborate with specialists at Christchurch hospital. Specialists are able to consult with the patient via video link, with the rural clinic nurse present too (O'Connor, 2013a). The rural nurse being present during the interaction gives the opportunity for them to listen to the advice and advocate for their patient when necessary. With a therapeutic nurse-patient relationship already formed, it can also be helpful if the specialist needs to give the patient bad news. O'Connor (2013a) found that the nurse present was able to support and reassure the patient and family and help them come to terms with the information they have been presented with. The three way telehealth collaboration with patient, nurse and specialist in this example worked well as it was appropriate and effective in supporting the needs of clients. This is in line with the New Zealand Health Strategy where they recognise the ability for telehealth to promote a patient focused approach to health (Ministry of Health, 2016a).

This example of using telehealth to collaborate with specialists also meets the Nursing Council of New Zealand Competencies for registered nurses. Competency 4.1 of the Competencies for registered nurses is "collaborates and participates with colleagues and members of the healthcare team to facilitate and coordinate care" (Nursing Council of New Zealand, 2007, p.29). Telehealth was used as a resource to connect the two teams in order to collaborate and plan the ongoing care of the patient.

Telehealth also proved advantageous when used specifically with Māori populations in rural areas. A trial of telehealth was carried out in a Māori facilitated health centre in rural Gisborne where 88 percent of the trial participants were Māori (Telehealth Cutting Rural Health Barriers, 2012). Telemonitoring equipment was used by the participants and the data was sent directly to the health centre's nurse. The system allowed for secure, question and answer, online chat of which the clinic nurse was able to correspond in te reo Māori (Telehealth Cutting Rural Health Barriers, 2012). This is an important feature as it allows the nurse to practice in a way that is deemed culturally safe by the client.

Participants in this trial were also seen to have developed a greater health literacy over the course of the trial. Participants noted that they were more interested in the numbers being displayed when taking their vital signs and learnt about what these measures meant for their health (Telehealth Cutting Rural Health Barriers, 2012). Collaboration between the health centre and participants not only produced better health outcomes for the clients but also their families. A flow on effect from this trial was evident as families became more involved. This led to widespread family interaction and education with whole households learning how to take their vital signs and how these measures related to their own health (Telehealth Cutting Rural Health Barriers, 2012). For participants, simply having access to their own personal health information and some education around this was enough to encourage lifestyle changes. Families started to exercise more and eat healthier in order to see a positive change in their vital signs.

Devitt (2018) and Venter, Burns, Hefford and Ehrenberg (2012) also discovered improved health literacy among patients as a product of collaboration using telehealth. Devitt (2018) implemented telehealth in an aged care setting by remotely monitoring their vital signs and being able to provide timely access to health coaching. One patient spoke about having a better understanding of his multiple chronic conditions. This resulted in the patient managing his own health for longer, a reduction in anxiety as well as giving him an increase in self-confidence (Devitt, 2018). This led to an increase in social interaction and subsequently fewer hospital presentations. Venter et al. (2012) also looked at remote monitoring of patients with chronic conditions. They had similar results from their research including better patient understanding of medical conditions, treatment and medications. They also reported increased family engagement and the ability to provide reassurance to both patient and family around the health of their loved one (Venter et al., 2012).

Although there are many positive aspects to telehealth, there are still some challenges to overcome when implementing the technology into rural areas. The most frequently acknowledged barrier identified in the literature was the need to have up-to-date, reliable equipment, with a suitable reliable internet connection. Lucas et al. (2016), found the unpredictable weather conditions on the West Coast were a barrier to successfully using telehealth services. With an abundance of rain and wind, power and internet services would often fail, meaning the tele-consulting options implemented were no longer able to be used. This meant staff were reluctant to use the equipment as it was not always reliable. O'Connor, (2013a) discovered that urban areas usually had state of the art equipment that was more up to date and fit for purpose than the rural areas. This lead to disparities in the functioning ability of equipment and meant poor visual and sound quality to the rural users. With limited equipment, O'Connor (2013b) also found that nurses spent a lot of time finding and booking equipment and getting the correct consultant on the other end of the technology. This became very time consuming and discouraged staff from using telehealth to collaborate with others in this way.

O'Connor, (2013b) found that trying to implement telehealth was not easy and proved time consuming. Doctors using telehealth in a rural emergency department spoke about it being a distraction. When other staff were using the telehealth equipment, it was loud and hard to get away from, as they work in a small area (Lucas et al., 2016). This also led to a privacy issue. In an area where everyone can hear and see what is going on, patient privacy is at risk. The solution that was implemented into the emergency department was to move the telehealth equipment into a separate room where the treating health practitioner and patient could all be in together (Lucas et al., 2016). This increased the amount of time taken for a patient consultation as it required more time to organise getting the patient into the correct room, with the correct staff and working technology. Lucas et al. (2016), drew the conclusion that although telehealth has its benefits, it was challenging to implement into an unpredictable and high pace environment like the emergency department. Although the logistics of telehealth caused problematic in this setting, the ability to collaborate and work with other health professionals from a distance was still seen as beneficial.

Davis, Hopkins, and Abrahams (2012), an Australian group using telehealth to provide speech language therapy to children, identified the need for face to face consultations alongside their telehealth services. Telehealth technology is a crucial aspect of their service because without it, many children would not have any access to regular speech language therapy unless they could afford the cost and time to travel. The feedback from their clients was that the face to face sessions were invaluable and supplemented the telehealth modules well. This shows that although telehealth services have the ability to do what is usually done face to face, it does not fully replace it. Face to face sessions are still important as they provide contact that you do not through telehealth.

Lack of face to face interaction with clients and the possibility of no longer having the same need for staff were other concerns identified throughout the literature. Wright and Honey (2016) discovered that nurses worried about the ability to form therapeutic relationships when interacting through telehealth with a patient. However, they soon found out that nurses were able to adapt to the new technology. They were still able to form the important relationships required to work in partnership with their patients (Wright & Honey, 2016).

RECOMMENDATIONS

It is evident from the literature above that telehealth offers a wide array of possibilities to enhance the way rural healthcare is provided. The first recommendation recognises that the support telehealth offers rural health professionals by connecting them with consultants and other specialist services is invaluable (Banbury et al., 2014; Lucas et al., 2016; Wright & Honey, 2016). However, this could be expanded further to increase interprofessional collaboration and aid in developing rural health professionals continued education (O'Connor, 2013a).

Telehealth could be used to enable rural health professionals to join in with grand rounds, where patient cases are presented for the education of others. By having a telehealth link, rural health teams could too be included in this educational tool and collaborate with others. Telehealth could also be used to connect rural staff with in-service trainings. These frequent trainings are important as they help with continued education and development. Not only could rural areas connect and collaborate with the urban areas but also other areas in similar situations. Increased opportunities for rural health professionals to collaborate with others, continue their education, and more professional development, will help them fell more supported. These opportunities for rural health professionals could aid in the retention of staff benefiting rural and remote communities greatly.

Lucas et al. (2016), recognised poor quality equipment and lack of reliable internet services as a challenge when trying to implement telehealth it into a rural emergency department. The second recommendation is to invest funding into technology and internet services to help combat these barriers. By increasing funding for technology and internet services, we can help to bridge the rural-urban divide. Up-to-date technology with good internet service will provide clear, quality visuals and audio for the users. This will, in turn, allow for greater communication

and assessment capabilities when collaborating with patients and health providers. Lucas et al. (2016), recognised that although the application in this environment was not favourable, telehealth still had room for development and in time they could see it working. Once telehealth can be used reliable in a clinical setting, it will increase the health professionals' confidence in the system.

These recommendations assist in working towards more equitable healthcare for rural New Zealanders. Increased professional development means the health providers in rural areas will have a higher level of skills they can use in their communities, thus reducing the need for rural people to travel further for specialist care. When rural providers are not able to offer the appropriate care needed for a patient, telehealth has the ability to connect and collaborate to overcome this. Telehealth provides a way to help bridge the current health inequities faced when living rurally (Lucas et al., 2016).

In 2020 with the global Covid-19 pandemic, there has been more reliance on telehealth services than ever before. This has increased awareness around the ability to provide health services from a distance as well as highlighting current challenges in its implementation. Telehealth in New Zealand has had to evolve and adapt to overcome new challenges faced in relation to Covid-19 (NZ Telehealth Resource Centre, 2020). Telehealth has provided a way to continue with social distancing and limit the amount of close contacts with health professionals and the public (Monaghesh & Hajizadeh, 2020). Limiting contacts leads to decreased transmission of the disease and helps slow the spread, thus keeping communities and health professionals safer. Telehealth is proving advantageous in helping stop the spread of disease and is being recommended as a tool to utilise to carry out safer health care during the global pandemic (Monaghesh & Hajizadeh, 2020).

CONCLUSION

Telehealth has been carried out in a variety of different clinical settings. It is important to remember that there are still challenges with successfully implementing telehealth into all areas but with further trials and development, these can be minimised. Telehealth has successfully overcome many of the barriers rural communities face when trying to access appropriate healthcare. By connecting the patient, primary health services and specialists, all parties are able to collaborate effectively, therefore providing specialist services closer to home, decreasing the time and cost taken to get to appointments as well as empowering patients to manage their own health. Connecting and collaborating via telehealth has not only had a positive impact on patients but also on their families with everyone getting involved. Telehealth is a tool that can be used to support our rural health professionals and reduce professional isolation. The opportunities telehealth holds are vast, and with the ever increasing advances in technology, it is a topic that is worth pursing for our rural and remote communities.

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IMMUNOTHERAPY VS CHEMOTHERAPY FOR BREAST CANCER: HOW IMPROVED COLLABORATION CAN IMPROVE OUTCOMES

Jasmine Monaghan

INTRODUCTION

Immunotherapy is an emerging treatment option for a range of prominent cancers, including breast cancer. Despite this, there are little to no teachings about immunotherapy as a treatment option for cancers in many undergraduate nursing institutions. This does not provide future health professionals with up-to-date and relevant knowledge for future practice that may involve immunotherapies as their use becomes more commonplace. Immunotherapy describes a treatment modality in which the host immune response to cancer is improved to eliminate cancerous cells better (Couzin-Frankel, 2013). The treatment options for more aggressive forms of breast cancer, including triple negative breast cancer, are limited to traditional treatments such as surgery and chemotherapy (Breast Cancer Foundation NZ, 2018a). Immunotherapy represents a new method by which breast cancer can be treated, either as standalone treatment or alongside the traditional options (Bayraktar, Batoo, Okuno & Gluck, 2019). While the currently approved immunotherapies for breast cancer tend to be experimental, the results to date provide promise that this field may be an option for suffers of breast cancer in the near future. There are many immunotherapeutic treatment options already approved and subsidised for cancers such as melanoma in New Zealand (Cancer Society, 2020). This paper will discuss the potential for immunotherapies to be an alternative treatment for breast cancer as opposed to traditional chemotherapeutic approaches, comparing the benefits and weaknesses for both therapies. Additionally, this paper will highlight, in the form of recommendations, the need for greater collaboration between researchers, New Zealand health professionals and tertiary institutes to allow for improved teaching related to immunotherapies in New Zealand.

BACKGROUND

Breast cancer is the most prevalent cancer diagnosed in New Zealand women each year, with 3294 diagnoses in 2017 (Ministry of Health, 2019). In breast cancer that is large or fast growing, the recommended treatments are surgery, chemotherapy and hormonal therapy (Breast Cancer Foundation NZ, 2020a). If surgery is not possible to remove a cancerous mass, then treatments such as chemotherapy, radiation and hormonal therapy are suggested in an attempt to reduce tumour size (Breast Cancer Foundation NZ, 2020a). Breast cancer is a heterogenous disease that can be classified into many groups based on a number of characteristics (Zhang, Wang, Yin, Zhang, Zhang and Niu, 2013). One such characteristic is the expression hormone receptors such as progestogen receptor, oestrogen receptor and human epidermal growth factor receptor 2 (Zhang et al., 2013). Of all forms of breast cancer, triple negative breast cancer is the most difficult to treat due to a lack of expression of the aformentioned receptors, therefore treatment with hormone-based therapies is not possible (Zhang et al., 2013).

The current available options for treating triple negative breast cancer in New Zealand are surgery and chemotherapy, and the identification of new treatments for this form of disease is an area of ongoing research (Breast Cancer

Foundation NZ, 2018a). This ongoing research includes immunotherapies. Promising results have been shown in a clinical trial in which the immunotherapeutic drug Tecentriq was used in conjunction with chemotherapeutic treatment (Schmid et al., 2018). This combination therapy was shown to increase life expectancy of those in the trial by 10 months (Schmid et al., 2018). These results were dependent on the expression of a specific protein, programmed death-ligand 1, the protein of which Tecentriq inhibits (Schmid et al., 2018). The following review of relevant literature aims to compare chemotherapy and immunotherapy treatments for breast cancer, with the aim to highlight both similarities to existing treatments as well as the ability of immunotherapies to provide a novel therapeutic alternative. Ultimately, this piece of work aims to promote a conversation around the need for greater collaboration between the researchers and clinicians, including nurses, to further progress the use and understanding of immunotherapies in New Zealand.

DISCUSSION

Immunotherapy

Immunotherapy refers to a broad class of therapies in which the host immune system is altered to provide therapeutic benefit, in the case of cancer this involves an improved ability to kill and remove malignant cells (Couzin-Frankel, 2013). These therapies either stimulate or alter a breast cancer patient's immune system in order to recognise and destroy tumour cells successfully (American Cancer Society, 2019a). An important feature of normal immune function is the ability to avoid recognition and destruction of healthy tissues within the body (American Cancer Society, 2019a). One major way in which this is achieved is through 'checkpoint' proteins, which typically function to limit activation of immune cells to keep immune responses controlled (Schmid et al., 2018). The inhibitory nature of these checkpoint proteins is often hijacked by tumour cells, including in breast cancer, to avoid destruction by the immune system (Schmid et al., 2018). Immunotherapies have been designed to target the checkpoint proteins and restore the immune response against breast cancer cells (Schmid et al., 2018). Atezolizumab and Tecentriq are antibody-based therapies that target the programmed death-ligand 1 protein, a common checkpoint protein found on immune cells and also some tumour cells (Schmid et al., 2018). Treatment with the drug leads to the inhibition of programmed death-ligand 1 function, removing the typical inhibition and ultimately increasing immune function (Schmid et al., 2018). It has been shown that these therapies have the ability to both reduce the size, and limit the growth, of breast cancer tumours (Schmid et al., 2018). This medication is typically administered intravenously at two week intervals (Schmid et al., 2018).

Benefits

Solid tumours, including breast cancer, secrete proteins that inhibit the ability for immune cells to activate and function effectively (Bayraktar et al., 2019) Therefore, to allow for a patient's immune system to target such tumours effectively, it is important to remove potential inhibition (Bayraktar et al., 2019). Through targeting inhibitory checkpoint proteins, such as programmed death-ligand 1, it is possible for immunotherapies to restore the natural tumour killing ability of the immune system (Bayraktar et al., 2019). It has been shown that many tumours have the potential to be immunogenic with the correct immune activation (Bayraktar et al., 2019). This is a promising benefit of immunotherapy as although there is a lack of influence on primary tumour growth, the immune system can play an important role in preventing breast cancer metastases (Bayraktar et al., 2019). Immune checkpoint blockade is a form of immunotherapy that has come to light as a promising new clinical approach to advanced forms of breast cancer (Mansour, Teo, Luen, Loi, Teo, & Luen, 2017).

Checkpoint antibodies were initially tested in treatment of melanoma and renal cell carcinoma, but because of the immunogenic potential of some breast cancer subsets, checkpoint blockade is a promising treatment approach for breast cancer (Mansour et al., 2017). Studies performed in the USA investigated the use of programmed cell death protein 1/programmed death-ligand 1 checkpoint inhibitors in breast cancer patients with all the breast cancer subtypes, including triple negative breast cancer or oestrogen receptor-positive/human epidermal growth factor

receptor 2-negative breast cancer (Mansour et al., 2017). When administered as a monotherapy, it was shown to be both safe and effective with an overall response rate of between 5 percent and 20 percent, and no adverse effects were seen in majority of patients (Mansour et al., 2017). The durability of response was also noted in these studies, which is a promising indication of having prolonged breast cancer tumour responses to immunotherapy (Mansour et al., 2017). Immunotherapies have been found to be more effective in combination with standard cancer treatments such as chemotherapy (Bayraktar et al., 2019). Data in which both chemotherapy and immunotherapy were used showed that the use of Atezolizumab or pembrolizumab in concert with chemotherapy lead to an improved overall survival rate compared to chemotherapy alone (Bayraktar et al., 2019).

Weaknesses

Immunotherapy can lead to a number of side effects. These tend to be relatively minor and include irritated eyes, skin rashes of the body and joint pain (Cancer Society, 2020). Less common side effects include headaches, changes of vision, severe abdominal pain and shortness of breath (Cancer Society, 2020).

Checkpoint inhibitors' function is to remove inhibition on the immune system that is typically present during normal immune function (American Cancer Society, 2019a). As such, removal of inhibition has the potential to induce uncontrolled immune cell function and lead to the attack of normal, healthy tissues (American Cancer Society, 2019a). This can affect areas such as the lung, liver and gastrointestinal tract (American Cancer Society, 2019a). The result of this attack on healthy tissue can lead to serious, potentially life-threatening effects (American Cancer Society, 2019a).

Administration of checkpoint inhibitors requires close monitoring of a patient from an appropriate clinician (American Cancer Society, 2019a). When treated rapidly, the majority of immunotherapy related side effects are reversible (American Cancer Society, 2019a). If life threatening complications were to occur, a dose reduction or treatment cessation may be necessary. (García-Aranda & Redondo, 2019). High doses of corticosteroids are often also used to suppress the immune system if serious over-activation occurs (American Cancer Society, 2019a).

Further research is needed to identify biomarkers capable of predicting a patient's response to immunotherapy and the immune-related adverse effects, allowing for improved patient selection in an attempt to predict adverse effects (García-Aranda & Redondo, 2019).

Chemotherapy

Chemotherapy represents the traditional treatment for breast cancer, refering to a broad class of drugs that disrupt the cell cycle, either inhibiting the growth of cancer cells or inducing their death (Breast Cancer Foundation NZ, 2020b). Drugs capable of inhibiting the growth of cancerous cells are referred to as cytostatic, whereas drugs that induce cell death are referred to as cytotoxic (Kummar, Gutierrez, Doroshow, & Murgo, 2006). Classical chemotherapy tends to be cytotoxic, while newer forms of chemotherapy under development can include cytostatic drugs (Kummar et al., 2006).

Chemotherapy can either be administered prior to surgery, known as neo-adjuvant, or post-surgery, known as adjuvant chemotherapy (Breast Cancer Foundation NZ, 2020b). Adjuvant chemotherapy is administered in an attempt to ensure that microscopic breast cancer cells that are not successfully removed with surgery are killed and all disease is removed (Breast Cancer Foundation NZ, 2020b). Alternatively, neoadjuvant therapy is administered in an attempt to reduce tumour size or lymph node disease prior to surgery, typically with cytotoxic chemotherapy (Kummar et al., 2006). Neo-adjuvant therapy is also used to allow for breast conservation, with a reduction in tumour size prior to surgery possibly removing the need for a full mastectomy (Breast Cancer Foundation NZ, 2020b). Neo-adjuvant chemotherapy can also provide an indication of the likelihood that a tumour will respond to further chemotherapeutic treatment, giving a predictive indicator of better survival (Kim, Osaki, & Toge, 2005).

Chemotherapeutic drugs are typically administered intravenously via injection or infusion at an oncology day stay clinic (Breast Cancer Foundation NZ, 2020b). Chemotherapy is usually given in cycles in order to allow for patients to recover from the side effects of the treatment (American Cancer Society, 2019b). The decision of whether an individual is to undergo chemotherapeutic treatment is typically determined by the consideration of a number of key factors (Breast Cancer Foundation NZ, 2020b). These include, but are not limited to, hormone receptor expression (human epidermal growth factor receptor 2), histology and stage of the tumour, presence of high-risk indicators such as lymphovascular invasion, and the age or general health of the patient (Breast Cancer Foundation NZ, 2020b).

Benefits

It is well established that chemotherapy aids in prolonging the life of sufferers of breast cancer (de Castro Figueiredo Pereira Coelho et al., 2018). Studies have suggested that multiple lines of chemotherapy can lead to an increased overall survival rate in those with advanced breast cancer (Palumbo et al., 2013). Trials conducted in France show that the administration of more than three lines of chemotherapy can induce an overall survival rate benefit of 11 months (Planchat et al., 2011). Additionally, multiple lines of chemotherapy were shown to reduce metastatic disease complications, decrease the rate of complications such as bone fractures and pleural perfusions, and increase quality of life, compared with those having fewer lines of chemotherapy (Planchat, et al., 2011). It is traditionally less common for elderly women to receive chemotherapeutic treatment; however, this view is changing—in particular in the case of adjuvant chemotherapy (Le Saux et al., 2015). Overall, studies conducted in New Zealand showed that patients receiving more lines of chemotherapy had improved survival rates (Breast Cancer Foundation NZ, 2018b).

Weaknesses

The major weakness for chemotherapy lies in the range of potential side effects. The nature and severity of these side effects is dependent on the type and dose of medication, as well as treatment length (American Cancer Society, 2019b). Typical side effects include hair loss, mouth sores, weight loss, diarrhoea and vomiting (American Cancer Society, 2019b). Chemotherapy can also negatively impact a patient's immune system by affecting the blood-forming cells in the bone marrow (American Cancer Society, 2019b). Damage to the bone marrow cells increases chances of infection, bruising and fatigue (American Cancer Society, 2019b).The majority of these side effects are short-term and resolve following treatment cessation (American Cancer Society, 2019b).

Unfortunately, some side effects induced by chemotherapy are longer lasting. Cognitive dysfunction has been found to be associated with a standard dose of chemotherapy in breast cancer survivors (Wefel, Saleeba, Buzdar, & Meyers, 2010). The cognitive decline domains consisted of learning, memory, executive function and processing speed (Wefel et al., 2010). A study in the USA showed that 21 percent of breast cancer patients receiving chemotherapy evidenced cognitive dysfunction, while 65 percent showed cognitive decline during treatment (Wefel et al., 2010). These results were also seen following extended follow up time, with 61 percent of patients showing cognitive decline (Wefel et al., 2010). Chemotherapy is also known to cause sexual dysfunction in women following treatment (Usta & Gokcol, 2017). Commonly used breast cancer chemotherapeutic agents can effect sexuality or sexual function, both directly or indirectly (Usta & Gokcol, 2017). Indirect damage to a woman's sexuality typically takes the form of reduced sexual drive or feelings of attractiveness, including but not limited to nausea, weight gain and alopecia (Usta & Gokcol, 2017). Cytotoxic chemotherapy can lead to direct damage to the ovaries, inducing premature menopause (Usta & Gokcol, 2017). The older a woman is when undergoing chemotherapy treatment, the more likely she is to go through menopause and potentially become infertile as a result (American Cancer Society, 2019b). Chemotherapy has no shortage of devastating side effects; before starting treatment the patient should be advised of the benefits and risks of their situation (Breast Cancer Foundation NZ, 2020b).

RECOMMENDATIONS

1. New Immunotherapy drugs to be available through public system

Immunotherapies are currently standard treatment for breast cancer patients in many other countries such as the USA, while New Zealand is beginning to follow suit. An immunotherapy medication (trastuzumab emtansine/ Kadcyla) was recently funded in New Zealand for use in breast cancer treatment (Pharmac, 2020a). This hopefully signals the first move for the New Zealand public health system towards increasing immunotherapy availability for breast cancer sufferers. New Zealand lags behind comparable countries in providing access to these new drugs (Breast Cancer Foundation NZ, 2018b). Tecentriq is a drug used in New Zealand for the treatment of lung cancer, although it has proven use in the treatment of breast cancer, it is not funded for this purpose in New Zealand (Pharmac, 2020b). Drugs such as Tecentriq, with proven efficacy in breast cancer, as well as newer, novel therapies need to be assessed faster and allowed funding to treat breast cancer in New Zealand (Breast Cancer Foundation NZ, 2018b).

2. New Zealand nurses gain a base knowledge on immunotherapies

There is a fundamental need for New Zealand nurses to have a base knowledge of immunotherapeutic drugs, their use, and possible side effects particularly due to the potentially life threatening nature of some side effects (Wiley et al., 2017). Due to the relatively new nature of immunotherapy, a large portion of the New Zealand nursing force will not have received any concrete training related to immunotherapies during undergraduate studies. Nurses care for people with cancer every day, although they may not be administering the medications, these nurses need to have knowledge of the treatments, allowing for patients to receive reliable information about their condition and treatment (Health and Disability Commissioner, 2020). Accordingly, it is vitally important for more widespread teaching based around immunotherapeutic drugs during undergraduate nursing training, in order to have a well-informed workforce capable of providing the best possible treatment for breast cancer. This will be best achieved through collaboration between immunotherapy researchers, New Zealand health professionals and tertiary institutes providing undergraduate nursing training. This will ensure that all aspects of immunotherapies, ranging from their fundamental principles through to clinical use, can be effectively taught to prospective nurses.

CONCLUSION

In this paper I have provided a discussion of relevant literature that shows how immunotherapy treatments compare to chemotherapeutic approaches with a focus of breast cancer (which represents one of the major health problems faced by New Zealand women). Traditional treatment of breast cancer involves chemotherapy, which is capable of increasing survival rates of breast cancer patients (Palumbo et al., 2013). These positive outcomes are often coupled with a number of negative side effects that can have life-long implications for breast cancer survivors. Immunotherapy is an emerging form of treatment for a number of cancers of high prevalence in New Zealand, including melanoma, lung cancer and breast cancer (Mansour et al., 2017). Similarly to chemotherapy, the immune system altering nature of immunotherapy can lead to a raft of side effects (García-Aranda & Redondo, 2019). In this paper, much of the literature suggested that these two treatment modalities are most effective when used collaboratively (Bayraktar, et al., 2019). Despite the promising clinical results seen for many immunotherapies across a range of cancers, this does not translate to proportional teachings in undergraduate healthcare degrees, including nurses. Healthcare professionals must both build and maintain a knowledge of emerging treatment modalities such as immunotherapies to allow for the best possible care to be provided to patients, and therefore the best possible outcomes achieved. New Zealand healthcare needs to come together and collaboratively work with the nursing profession and its undergraduate teaching institutions to help provide up-to-date knowledge about cancer treatment options such as immunotherapy in New Zealand. The utilisation of a collaborative environment in this sense is vital to ensure that graduating health professionals are armed with the best possible knowledge based upon both existing therapeutic options as well as those that are emerging.

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COLD CHAIN AND ITS IMPORTANCE

Olivia Churchman

INTRODUCTION

Cold chain management is a process that is vitally important within contemporary healthcare. Health and well-being are strongly linked to appropriate immunisation and complete immunity. The World Health Organization (WHO) (2020a) defines immunisation as "a process whereby a person is made immune or resistant to an infectious disease, through administration of a vaccine" (p.1). In order for vaccinations to be safely administered, they must be appropriately handled and transported to maintain a continuous stable and optimum state, through an intrinsic process known as 'cold chain'. The WHO (2020b) identifies cold chain as system in which various professionals are involved in handling and transporting vaccines, from manufacture up until they are administered, at optimum temperatures between two and eight degrees celsius in order to maintain vaccine potency and stability.

Cold chain is a highly collaborative process, dependent on each person to uphold duteously their given responsibility throughout the process. Collaboration exists on transforming segregated individual tasks into meaningful inter-professional obligations, during which the reduction of harm and the promotion of health is fundamental. It is the concept of caring that differs nursing from other professions. With a caring culture, healthcare professionals see every team member as an intricate piece of a whole, one cannot exist without the other. This publication demonstrates that an atmosphere that meets team members' individual needs and binds healthcare professionals together, can only exist through inter-professional collaboration (Wei, Corbett, Ray, & Wei, 2020).

Currently in New Zealand (NZ) there is still a record number of incidents whereby the cold chain process is broken, and vaccines destabilise leading to ineffective immunisation. There is considerable evidence to demonstrate that the current protocols for cold chain management in NZ are not effective and are endangering the lives and trust between patients and health professionals. In a report published by the Ministry of Health (2018a) statistics showed there had been an excess of excursions, whereby a vaccine is out of its optimum temperature range for too long, and irreversible damage has occurred to the potency and stability of the vaccine. It is estimated that one medium-sized fridge or chilly bin containing an appropriate amount of vaccines will cost more than $8,000 to replace after an excursion has occurred. This is clearly a critical issue, resulting in adverse effects for every single person in NZ when the cold chain process is not strictly adhered to. The literature review allowed an opportunity to research where the process is currently broken and to develop strategies that will enable the process to be more safe, efficient, and collaborative.

EVIDENCE AND FINDINGS

Cold Chain Protocol Implementation

Current evidenced-based research available within NZ, during the time period in which cold chain was first introduced until the present, demonstrates a significant gap within effective cold chain processes and protocols nationally. New Zealand has only recently developed the National Standards for Vaccine Storage and Transportation

for Immunisation Providers (Ministry of Health, 2017). This was the first policy to be published in relation to regulating the cold chain process within New Zealand. However, there are limited studies within NZ dating back to the early 1990s in association with the cold chain have been published. Therefore, it can be concluded that NZ has been undertaking practices that are not regulated nor evidenced-based.

Studies investigating the cold chain protocols for vaccines within NZ focussed primarily on assessing the effectiveness of cold chain processes. Four studies found that current cold chain processes do not ensure the stability and potency of vaccines from manufacturer to when they are administered (Clancy, Karish, Roddy, Sicilia, & Bigham, 2017; Hazelton, Balcomb, Bowd, Hazelton-Parsons, & Liddle, 2002; Nursing Review, 2011; Turner, Laws, & Roberts, 2011). A document published by the Ministry of Health (2016) reviewing cold chain practices and management at a national level identified current cold chain protocols as a "significant issue and an area that needs urgent improvement in the future" (p.2). This is a critical issue as it impedes on the integrity of herd immunity and the 95 percent National Immunisation Target set by the Ministry of Health (2018b).

Whilst not every study focused on the effectiveness of cold chain protocols, several identified the need for more comprehensive guidelines and planning surrounding cold chain. From a public health perspective, this would enable a decreased risk of errors, the prevention of cold chain breaches, excursions and failures and an increase in safety when storing, handling and administering vaccines (Chiodini, 2014; Clancy et al., 2017; Kosari et al., 2018; Ministry of Health, 2016; Turner et al., 2011). However, it is also important to note that some studies also investigated education programmes surrounding cold chain prractices yet did not identify significant changes following programme implementation (Datkuliak & Chichester, 2014; Hazelton et al., 2002; Thielmann, Viehmann, & Weltermann, 2015). This may be due to the education programme not being tailored to everyone's learning style. It may also be that despite the implementation of the education programme, protocols within the healthcare setting were still lacking the comprehensive processes needed in order to achieve change as was the case in one particular study (Thielmann et al., 2015). This demonstrates the need for ongoing education that is tailored to specific clinical settings and the implementation of comprehensive cold chain protocols that will be effective and optimise processes within practice.

Cold Chain Procedures in New Zealand

Five studies investigating errors in the storage, handling and administration found that vaccines were often exposed to temperatures outside of their optimum range. One study in particular found that in one bulk transportation of vaccines, 20 percent of freeze-sensitive vaccines and eight percent of heat-sensitive vaccines had been exposed to temperatures out of range. Research estimates that in NZ this leads to a loss of $NZ4 million annually, with 73 percent of this cost related to preventable incidents within practice.

Vaccine vials that are exposed to suboptimal temperatures develop microscopic cracks as a result of volume expansion resulting in bacterial contamination. This can lead to local or systemic infection within the recipient (Chiodini, 2014; Purssell, 2015; Smith, 2019; Turner et al. 2011; Youssef, Mearkle, & Ford, 2020). Vaccines in NZ are imported from Australia and are then stored in Porirua at the national vaccine store. They are then sent by ProPharma to eight stores regionally from where they are delivered to general practices (Nursing Review, 2011). Inadequate storage of vaccines occurred within general practice in 49 percent of cases, during transportation in 46 percent of cases, and within the vaccine store in five percent of cases (Turner et al., 2011).

DISCUSSION AND IMPLICATIONS FOR PRACTICE

Ineffective cold chain protocols pose detrimental implications within public health. Inappropriate management of cold chain can result in reduced potency of vaccines leading to a lowered immune response and therefore poor protection against severe and life-threatening diseases, for example measles and meningitis (Youssef et al., 2020).

Cold chain failures which result in individuals needing to be re-immunised can cause a lack of trust and complicate the relationship between the individual and healthcare practitioner. This therefore affects herd immunity and poses wide-reaching risks within the community (Chiodini, 2014; Purssell, 2015; Smith, 2019). New Zealand primary health and public health nurses are predominantly responsible for ensuring the cold chain processes of vaccine storage, handling and administering are adhered to (Immunisation Advisory Council, 2019).

Therefore, it should be mandatory that adequate protocols are implemented in clinical settings that are appropriate for registered nurses to practise safely and provide vaccines. This will also enable adequate monitoring, education and quality improvement surrounding cold chain in association with their scope of practice as defined by the Nursing Council of New Zealand (2012).

In a study published by Carr, Byles, and Durrheim (2017), research showed that practice nurses that were qualified to immunise were 98 percent more likely to uphold practices that ensured appropriate cold chain management. This study signified that registered nurses play an integral role in ensuring the optimal practices of cold chain protocols ultimately leading to a decreased risk in errors, the prevention of cold chain breaches, excursions and failures and an increase in both professional and patient safety. Registered nurses are in an ideal position to collaborate with patients and other healthcare professionals in order to implement national protocols at a local level in order to achieve effective cold chain processes.

It is also within a registered nurse's scope of practice at a societal level to advocate for change that will improve care provided to individuals and the population (Nursing Council New Zealand, 2012). Since it is clear that NZ does not currently have effective protocols that enable healthcare practitioners to provide safe, evidenced-based practice associated with cold chain, the need to formulate comprehensive protocols is essential. Primary health aims to promote, maintain and improve healthcare provided to individuals and the population with a specific focus on prevention (Ministry of Health, 2020). By reducing and ultimately preventing the significant risk factors for cold chain breaches, excursion and failures, improvement in practice safety, trust with healthcare practitioners and herd immunity can be achieved. Therefore, there is an obvious need for advocacy of a nationwide protocol.

RECOMMENDATIONS AND RATIONALE

1. National Cold Chain Fact Sheet

It is imperative that an evidenced-based factsheet is implemented within primary healthcare services associated with the cold chain protocol as defined by the National Standards for Vaccine Storage and Transportation for Immunisation Providers (Ministry of Health, 2017). The Ministry of Health (2016) states "there is a need to develop a more comprehensive guideline and factsheet for managing cold chain across a wide range of scenarios" (p.3). The six 'C's of Cold Chain are shown in Figure 1, which is an evidenced-based factsheet that was recently developed to provide quick reference guidelines when practising cold chain within primary healthcare in order to provide more consistent, systemic care (Churchman, 2019). The six 'C's of Cold Chain include:

1. **Comply** with policies and understand your role within nationally documented protocols
2. **Check** all equipment is functioning up to the appropriate standards and is replaced before expiry
3. **Consider** the effects on the client and population if the cold chain process is not followed including re-immunisation, loss of herd immunity, an increase in preventable diseases and the loss of trust and confidence in the healthcare profession
4. **Continuous** monitoring of temperature should be used to ensure vaccines are strictly stored between 2°C and 8°C therefore reducing breaches, eliminating excursions and maintaining safety
5. **Collect** and document all information relevant to the cold chain process
6. **Consult** and inform relevant authority in the case of breaches, excursions or any situation in which impedes on the safety of the client, population or practitioner (Churchman, 2019).

The 6 C's of Cold Chain

Olivia Churchman
Student Nurse

– August, 2019 –

01 Comply

Comply with policies/guidelines and understand your role within these documents:

· The National Standards for Vaccine Storage and Transportation for Immunisation Providers 2017
· The Cold Chain Management Policy 2017
· The Annual Cold Chain Management Record

02 Check

Check all equipment is functioning up to the correct standard and is replaced before its expiry including:

· Pharmaceutical fridges and freezers
· Thermometers
· Storage and transport containers

03 Consider

Consider the effects on your client and population if the cold chain process is not followed such as:

· Re-vaccinating
· Increase in outbreaks of preventable diseases
· Loss of confidence in the healthcare profession

04 Continuous

Continuous monitoring of temperature should be used to ensure:

· Vaccines are strictly stored between 2°C and 8°C
· Breaches are reduced
· Excursions are eliminated
· Safety is maintained

05 Collect

Collect and document all information relevant to the cold chain process including:

· Fridges and freezer temperatures
· Storage and transport container temperatures
· Annual cold chain record and certification

06 Consult

Consult and inform relevant authority in the case of:

· Breaches
· Excursion
· Any situation in which risks the safety of your client, the population or yourself

RESOURCES

Ministry of Health. (2017). National Standards for Vaccine Storage and Transportation for Immunisation Providers. https://www.health.govt.nz/system/files/documents/publications/national-standards-vaccine-storage-and-transportation-immunisation-providers-2017-v2.pdf

Ministry of Health. (2017). Annual Cold Chain Management Record. https://www.health.govt.nz/system/files/documents/publications/annual-cold-chain-management-record-june17.pdf

Ministry of Health. (2017). Cold Chain Management Policy. https://www.health.govt.nz/our-work/preventative-health-wellness/immunisation/national-immunisation-programme-cold-chain-management

Figure 1. The 6 'C's of Cold Chain Poster.
Source: Olivia Churchman.

By implementing a nationwide quick reference factsheet, it enables the collaboration of healthcare practitioners throughout all regions in NZ therefore ensuring cold chain effectiveness, maintaining safety and improving evidenced-based nursing practice (Immunisation Advisory Council, 2020a; Ministry of Health, 2018c).

2. National Education Programme

It is crucial that a nationwide education programme be implemented in order for registered nurses and other healthcare practitioners to remain competent in association with their clinical and cultural skills. The Health Practitioners Competence Assurance Act 2003 requires health practitioners to uphold a continuity in education in order to obtain a standard of evidenced-based practice. The Immunisation Advisory Council (2020b) has recently implemented a cold chain vaccine storage and transportation education programme, however it is not mandatory to be completed by all individuals involved within the cold chain process. Increasing health practitioners' knowledge of policies and protocols throughout the cold chain process will improve their competency relevant to effective vaccine storage and transportation. This will reduce the risk of breaches, eliminate the potential for excursions and ensure the safety of the individual, population and practitioner (Purssell, 2015; Turner et al., 2011). Collaboration of healthcare practitioners to provide interpersonal education with a multidisciplinary approach will allow for a broader understanding of the importance of the cold chain process in order to work together in the best interests of the individual and population (Datkuliak & Chichester, 2014; Ministry of Health, 2018c).

3. Expansion of Cold Chain Accreditation Model

It is essential that a broader cold chain accreditation model is implemented in order to ensure vaccine potency and stability throughout every step in the cold chain process. The Ministry of Health (2016) states "the current cold chain accreditation model lacks frequency and scope as it focuses on policies in a clinical setting and does not include requirements for off-site clinics" (p.3). In order to provide culturally safe care to patients in a variety of settings, it is imperative registered nurses have the ability to practise in a safe

manner that reduces any unnecessary risk to their patients and themselves as healthcare practitioners. Therefore, it is vital that they have access to evidenced-based protocols in order to uphold their responsibility (Nursing Council New Zealand, 2012). Implementation of a more effective cold chain accreditation model will enable registered nurses to reach a broader range of individuals within the community. This will ultimately improve immunisations rates within public health while working in partnership as a collaborative profession to achieve the 95 percent Immunisation Target (Ministry of Health, 2016; Ministry of Health, 2018b).

CONCLUSION

Cold chain management is a process that is vitally important within contemporary healthcare. When the cold chain process is broken, there are detrimental implications for individuals and the population overall. In order to continue to improve the effectiveness of cold chain and the outcomes for patients, it is crucial nursing students, registered nurses and other healthcare professionals understand how to work in partnership using a collaborative multidisciplinary approach to provide the most appropriate education, prevention and practice measures. Only then will health practitioners be enabled to uphold effective cold chain procedures and perform in a unanimous, mellifluous manner that advocates for and promotes the health of New Zealand.

Olivia Churchman is a third-year nursing student currently undertaking a Bachelor of Nursing at Otago Polytechnic. Olivia began researching Cold Chain in New Zealand during her second year primary health clinical placement with Public Health Otago. By the completion of her clinical placement, Olivia had researched and developed the 6 C's of Cold Chain which was then distributed as a resource to Public Health Otago and the Immunisation Advisory Council. Olivia has continued to invest her interests and research into cold chain within New Zealand throughout her undergraduate education.

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RISING FIGURES IN STUDENT DEPRESSION: CAN EXERCISE REPLACE PHARMACEUTICALS?

Nicola McQuillan

INTRODUCTION

The increase in mental illness in New Zealand is undisputed and currently there is a lot of work being done to promote mental health awareness and create a society free of discrimination (Ministry of Health, 2019). What perhaps is not so widely recognised is the extent of depression and anxiety within our tertiary student community. Many students will make the transition from secondary school to a tertiary education environment with little or no problem, but others, particularly those with pre-existing mental health issues, will struggle. Factors such as loneliness, relationship issues, financial difficulty, homesickness, fear of failure, and juggling work commitments with study commitments are believed to be contributors. It may well be due to the fact stigma associated with mental health struggles is diminishing that we are seeing an increase in young people seeking help. This is both encouraging and concerning. Students aged between 18 and 25 years old are more likely to experience adverse effects of stress and have the highest rate of depression and suicide compared to any other group (NZ Mortality Review Data Group, 2013; Sarokhani et al., 2013). Antidepressant medication is widely available and easily obtained. However, this treatment does not come without obstacles. In some patients, it may take many months of trial and error to determine the most effective medication and dosage. A lack of patient education and follow-up care is a lead reason for non-adherence to medication and resulting in lack of trust in healthcare system (Unützer & Park, 2012).

Due to the disproportionate rate of depression and suicide among young New Zealanders between 18- and 25-year-olds, this paper is primarily focusing on these individuals within a tertiary education environment (New Zealand Union of Students' Associations, 2018). By reviewing literature and scientific findings regarding exercise as a management option for depression, this paper makes a comparison between traditional pharmaceutical therapy, and what improvements can be made from a nursing perspective.

PHARMACUTICAL TREATMENT

Antidepressants are a medication used to manage moods, anxiety, social functioning, energy levels and sleep. In New Zealand, prescriptions of antidepressants rose by 21 percent between 2008 and 2015. By these statistics, one in eight adults in New Zealand have been prescribed this medication as at 2018 (Aselton, 2010; Russell, 2018). Some common side effects of these medications include nausea, headaches, strange dreams, difficulty sleeping, sexual dysfunction and for the first couple weeks of taking antidepressants, increased suicidal ideation is common (Santarsieri & Schwartz, 2015).

While there is little evidence and research surrounding the link between antidepressants and suicidal ideation, it is generally accepted that antidepressants can cause violent behavior and suicidal ideation in children and adolescents. However, one study comparing antidepressants to placebo in healthy adults with no sign of mental disorder found suicidal ideation to be a prominent side effect in the antidepressant group (Andalo, 2016). While Stübner et al, (2018) suggests that suicidal ideation is a rare side effect of antidepressants, Andalo (2016) conversely advocates that it is vastly underestimated.

Selective serotonin reuptake inhibitors (SSRIs) are often the preferred variety of antidepressants to prescribe as they tend to have milder side effects and are often more effective for patients (Ferguson, 2001). However, SSRIs are not a "one size fits all" solution for depression as the effects of the drug vary for individuals. It is assumed that approximately 50 percent of patients have a positive outcome with antidepressant treatment including a decrease in symptoms, whereas others have a negative or "mixed" experience and require further trials with other types of drugs within the class, or alternative treatments (Gibson, Cartwright, & Read, 2016).

Non-adherence to pharmaceutical treatments is a common occurrence within mental illness for a variety of reasons. A 2017 study conducted by Ho, Jacob, and Tangiisuran found that some of the barriers that caused non-adherence with antidepressant drug therapy were lack of understanding of depression as an illness, as well as a lack of education surrounding the drug itself. While some believed that because they were lacking symptoms on a particular day, it wasn't necessary to continue to take medication, others found the side effects undesirable. For some, cultural or personal beliefs surrounding antidepressants cause suspicion whether the pharmaceutical companies are more interested in making money than they are about personal health, or that by swallowing a tablet each day they are being 'lazy' for taking the easy option, as opposed to 'working through' the underlying issues and root cause. Furthermore, this study found that perceived health benefits facilitated adherence as well as positive effects of medication as opposed to patients who had negative beliefs towards antidepressants.

Among university students specifically, evidence suggests that lack of adherence to antidepressant medication regime is due to forgetting, fearing dependency, not finding the medication effective, or a desire to find alternative solutions as opposed to pharmaceutical treatment (Hammonds et al., 2015).

Cartwright, Gibson, Read, Cowan, and Dehar conducted a study in 2016 in New Zealand examining patients' views of long-term (between 3 and 15 years) antidepressant treatment and the adverse side effects of these. The results of this study showed that while these treatments were effective in reducing depressive symptoms for almost 90 percent of participants, many had concerns regarding the side effects. Of these, the most commonly reported were weight gain (65.3 percent), emotional numbness or apathy (64.5 percent), sexual dysfunction/effect on libido (71.8 percent), as well as withdrawal symptoms (73.5 percent) and addiction to treatment (43 percent).

EXERCISE

It has long been an accepted fact that exercise is an effective treatment in a variety of illnesses and disabilities, including mental health. Though the antidepressant factor of exercise isn't clear, it is thought that it is related to sleep regulation, and the physiological and hormonal response to exercise that reduces depressive symptoms as well as reducing side effects of antidepressant medication (Jorm et al., 2006). Aselton (2010) compared a number of studies, one of the main findings throughout this literature was that many students found exercise was an effective coping strategy, one participant even citing exercise as "life-saving." This study found commonality among these students, who found that exercise lifted mood and helped them to deal with stress appropriately, an expected finding according to a review of related literature (Aselton, 2010; Jorm et al., 2006). A study conducted with groups of participants that had either a mood disorder diagnosis or non-clinical depression, both groups were found to have had a positive effect on mood and a significant decline in depressive symptoms compared to the control groups (Stathopoulou, Powers, Berry, Smits, & Otto, 2006). There is, however, limited research regarding the effects of exercise on depression compared with the effects of antidepressants as exercise is often treated as complementary to antidepressants as opposed to stand-alone treatment. One study found that there was little to no significant difference between exercise as treatment and pharmaceutical therapy, therefore concluding that exercise is a comparable treatment to antidepressants and psychotherapy. This study also indicates that in the treatment of depression, exercise works best in conjunction with an effective antidepressant medication regime (Aselton, 2010; Kvam, Kleppe, Nordhus, & Hovland, 2016).

Though there is no advisable "dose" of exercise that patients with depression should commit to, it is essential that patients maintain regular exercise and consider it as a longer-term treatment for depression. This topic would also benefit from further research regarding the benefits of exercise in depression treatment as it would observe adherence issues, as well as professional and economic matters. This would require a longitudinal observational study where subjects are able to be studied and monitored over a period of time (Aselton, 2010; Blumenthal, Smith, & Hoffman, 2012; Caruana, Roman, Hernández-Sánchez, & Solli, 2015). Regarding students specifically, Aselton (2010) also found that participants with social support were more likely to engage in healthy habits such as exercise or expressing their emotions to their friends, perhaps suggesting a need that could be met through tertiary organisations.

PHYSIOLOGICIAL FACTORS

Though the definitive reason why exercise has a positive effect of mood is undetermined, Netz (2017) found that exercise potentially facilitates brain derived neurotrophic factor (BDNF) as a mechanism that lowers depression. BDNF is often found to be in lower concentrations in depressed individuals, and upon treatment of antidepressants for at least four weeks, BDNF is replenished back to normal levels (Lee & Kim, 2010). Involved in activity-dependent neuronal plasticity, such as memory and learning, a decline of BDNF does not necessarily cause depression, but appears to have some link. Evidence from clinical studies does show that when a patient has major depression, their brain suffers from a neuronal dysfunction or decreased occurrence in BDNF activity (Lee & Kim, 2010).

Several studies show that exercise likely activates molecular mechanisms in the neuromuscular system, triggering an increase in BDNF. However, it is more likely that the antidepressant effect of exercise is not solely from BDNF, but several neurobiological mechanisms (Gómez-Pinilla, Ying, Roy, Molteni, & Edgerton, 2002). These effects, especially when in combination with pharmaceutical therapies, can have a response as early as within two days, as opposed to antidepressants alone requiring at least four weeks to take effect (Kvam et al., 2016; Netz, 2017).

RECOMMENDATIONS

1. Early Intervention

The best option for treating depression is early intervention and prevention where possible. For university students, many may not have been professionally diagnosed with depression. If these students can be identified, provided appropriate health services and treated for depression, it would decrease risk of suicide or other consequences of depression (Phimarn, Kaewphila, Suttajit, & Saramunee, 2015). Tertiary education institutes and their staff have a responsibility to support students struggling with mental illness and should be vigilant in identifying individuals that require this extra support, particularly due to the fact that grades and academic pressure is a prominent cause for stress and depression among students (Kang et al., 2013). Studies show that individuals are more likely to be treated for depression in a primary healthcare setting rather than by a mental health professional, however, these primary health professionals fail to recognize and treat depression in 30 to 50 percent of these patients. These statistics give little hope for sufferers of depression, and screening tools should be proficiently exercised in an attempt at early intervention (Pignone et al., 2002).

As for the role of academic staff, specific training could be provided regarding depression in students to enhance counselling abilities and strategies which promote awareness and provide students with a sense that they are supported emotionally and academically while they study (Phimarn et al., 2015).

2. Encouraging exercise

There is promising evidence that many self-help interventions, including exercise, reduce depressive symptoms (Morgan & Jorm, 2008). As discussed previously, evidence suggests that exercise is just as effective at treating depression as pharmaceutical therapies and is even more effective when used in conjunction with antidepressants (Netz, 2017). An appropriate recommendation for students with depression or someone caring for a depressed individual is to encourage regular exercise by incorporating it into daily routine. For tertiary institutes, offering free group exercise classes may be effective. One study showed that when free exercise classes were available in a neighbourhood park, physical activity of park users increased by two to three times (Han et al., 2015). This could be applied to students by offering more free exercise groups, classes and clubs to encourage a similar result. As Aselton (2010) suggested, organised groups are more likely to engage in healthier habits. Tertiary organisations can encourage or even enforce support groups that perhaps study or exercise together. Tertiary organisations could use these groups to have fortnightly or monthly group projects worth a small percentage of class grades. This could make a huge difference in someone's social situation and mental health, as well as relieve academic stress.

3. Education surrounding mental illness and SSRIs

Left untreated, patients with depression have a lower quality of life, are more likely to commit suicide, and experience worse outcomes for physical co-morbidities (Williams, Chung, & Muennig, 2017). Antidepressants (including SSRIs) can be particularly effective in treating depression under the right circumstances. As with all medication, there are factors that must be considered for use in every patient, such as the side effect profile, ease of use, and interactions with other medication (Simon, 2019). Barriers for antidepressant medication adherence include lack of education surrounding mental illness, side effects, and social stigma about antidepressants (Ho et al., 2017). The way we can target these barriers is by educating patients, their families, as well as the general population about antidepressants and how they work. The New Zealand Government has made considerable improvements in the budget for mental health and well-being, prioritising mental health with a focus on this along with well-being and addiction initiatives in the 2019 Budget (Ministry of Health, 2019). However, it is the role of health professionals to be educated around mental illness, treatment, and raise awareness in every area of healthcare as to dissolve the stigma and discussion about mental health.

4. Nursing Perspective

Serving as advocates for the best health outcome for patients through education and knowledge sharing is a fundamental part of the nurse's role, and indeed is one of the most valuable services a nurse can provide. As nurses are considered a trustworthy resource, it is an excellent position to teach students about depression, how to recognise it among their peers, about antidepressant treatments, as well as alternative methods of dealing with stress and depressive symptoms (Aselton, 2010). Within institutes and community settings, nurses play a pivotal role in the treatment of depression. Along with providing a range of therapeutic interventions, there is an opportunity for health care professionals to present current best practice information, guidance regarding compliance, and offer reassuring comfort. This allows the patient to make informed decisions regarding their own well-being, as well as strengthening the patient's trust and confidence, leading to improved health outcomes.

CONCLUSION

With the highest rates of depression and suicide in the country, the need for the provision for improved services and support for tertiary students should be a priority consideration for all healthcare and education personnel, from triage nurses to policy makers (Aselton, 2010; NZ Mortality Review Data Group, 2013).

Though antidepressants often provide an improvement in depressive symptoms, this is not the only form of treatment available. Exercise is proven to be just as effective alone and improves results when combined with antidepressants (Netz, 2017). Exercise is not constrained by cultural, social, or economic backgrounds, is inexpensive, and can be worked into any schedule. Exercise is a powerful holistic treatment that is deserving of inclusion in all mental health intervention (Aselton, 2010). All education providers have a responsibility to their students to have a level of awareness around mental health; this could facilitate early intervention for students who may otherwise not seek support of their own volition.

Nicola McQuillan is a young woman entering the nursing profession with her Bachelor of Nursing in 2020. She has a passion for mental health advocacy stemming from her experience working as a mental health support worker alongside her degree. Nicola hopes to see a raised awareness of all mental illness and treatment options for New Zealand's future.

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TYPE 1 DIABETIC YOUTH: IS THE NEW ZEALAND HEALTHCARE SYSTEM FAILING THEM?

Ella Ng

INTRODUCTION

The youth are our future, yet there is concern that the Ministry of Health and the New Zealand healthcare system is not doing enough to help our youth living with Type 1 Diabetes, particularly in regard to the transition process from paediatric to adult services. Not only is New Zealand's healthcare system facing an increase in the number of people living with Type 1 Diabetes, this health issue could potentially be contributing to an increase in acute hospital admissions, more pressure on long-term patient services and a substantial gap in meeting the needs of people living with Type 1 Diabetes (American Diabetes Association, 2007). This review has been developed in the hope that the Ministry of Health will work in collaboration with district health boards, to provide a structure or a plan that is suited to the needs of youth living with Type 1 Diabetes during their transition process, with the goal of improving their health outcomes.

BACKGROUND

There is evidence that youth living with Type 1 Diabetes struggle with managing the fluctuation of their haemoglobin A1c levels (HbA1c) (Castle et al., 2017; Levy-Shraga et al., 2016). International research has shown that transitioning youth to adult services can negatively impact the young person's health condition management and overall wellbeing (American Diabetes Association, 2007; Sheehan, Coyne & While, 2014; Garvey, Markowitz & Laffel, 2012; Pyatak et al., 2014). Our community has a responsibility to deliver health care services based on current knowledge of best practice. The growing awareness of the specific needs of youth living with Type 1 Diabetes has highlighted that New Zealand needs to explore the findings from international research in regard to improving service delivery and healthcare pathways for our youth.

DISCUSSION

There are 250,000 New Zealanders currently living with Type 1 Diabetes (Ministry of Health, 2016), with one in 5000 people under the age of 15 years with this condition (Southern Cross, 2019). Diabetes is prevalent across the life span; the age of people living with Type 1 Diabetes can range from neonatal to the elderly. Blood glucose monitoring is part of the standard of care for people living with Type 1 Diabetes. Blood glucose control determines the health of the individual and predicted health outcomes. Higher blood glucose levels are associated with an increase in HbA1c levels. Higher HbA1c levels can increase risks of diabetes-related complications such as, cardiovascular disease, retinopathy, neuropathy, and renal impairment (Sapra & Bhandari, 2020). Currently, New Zealand's standard care for people living with Type 1 Diabetes is divided between specialist paediatric and adult services, with transitioning between these services occurring between 15 to 18 years (Starship, 2020).

A study conducted by Castle et al, (2017), assessed HbA1c levels of children and young people living with diabetes in the Otago region, aged from 0 to 18 years. The average HbA1C level for children aged between 0 to 12 years was 71-75mmol/L, whereas children aged from 13 to 18 years ranged from 77-84mmol/L. The study found that only one in 38 youth were meeting the HbA1c target criteria as set by the New Zealand Ministry of Health 2009 (Castle et al., 2017). The recorded increases of HbA1c levels in the 12-18 age group may be linked to the way in which the transitioning process affects youth living with Type 1 Diabetes, however the impacts of transitioning between paediatric and adult services was not explicitly explored in this study.

With such a wide range of age groups, treating people living with Type 1 Diabetes can have many repercussions as will be discussed further in this article. The New Zealand healthcare system is potentially faced with a gap in meeting patient needs by only providing services for two age categories of people living with Type 1 Diabetes (Weissberg-Benchell et al., 2007).

ISSUES IDENTIFIED WITH TRANSITIONING BETWEEN SERVICES

There is a growing body of research internationally that is exploring the impacts on youth as they transition from paediatric to adult specialist services for the treatment and management of their Type 1 Diabetes. Iyengar, Thomas and Soleimanpour (2019) found that across the different age groups of people living with Type 1 Diabetes, it is youth that have the worst glycaemic control overall. Not only are their HbA1c levels affected, but they also reported that there are psychological impacts as a result of transitioning between paediatric and adult services, which appear to further contribute to higher and/or more unstable HbA1c levels. Nineteen percent of youth in this study also associated the development of their depressive disorders with their diabetes (Iyengar, Thomas & Soleimanpour, 2019).

Wessiberg-Benchell, Wolpert and Anderson, (2007) reported that a lack of psychosocial maturity impacts on young people being able to transfer to adult services successfully. Youth are experiencing the hormonal changes linked with puberty which not only impact on physical development, but also on cognitive development, behaviour, and the individuating process. This is also supported by the findings of Sheehan, Coyne, and While (2014), who found that transitioning from paediatric to adult services can be associated with a decrease in clinical attendance, which further results in higher HbA1c levels. According to Hockenberry et al, (2019), children with chronic illnesses face many challenges their peers do not, such as having to deal with rigorous treatment plans and being able to develop autonomy and self-efficacy.

Pytak et al, (2014), identified that limited information about transitioning between paediatric and adult specialist services led to reduced levels of client satisfaction and a deterioration in overall HbA1c levels for youth. They researched how the organisation of the United Kingdom healthcare system left youth living with Type 1 Diabetes unprepared and uneducated for transition. Within a year of transitioning, the majority of the participants in the survey had a higher HbA1c level and an increase in hospital admissions related to Type 1 Diabetes (Pytak et al., 2014).

Zhou, Roberts, Dhaliwal and Della, (2016) found that youth who were in the process of transitioning between services voiced concerns around facing the unknown, potential communication issues, building new relationships with staff, and becoming autonomous. Coyne et al, (2014), also reported that there was little effort in engaging with the youth once they had transitioned to adult services. If there was a lapse in appointment attendance, it was considered the young person's responsibility to follow up with this, rather than the services being active in attempting to re-engage with the young person. There was evidence that suggested that the slower the transition, and the more informed the patient is regarding this process, the more responsive the young person is to engage with adult services (Coyne et al., 2019).

It is understandable when youth with long-term chronic conditions struggle when transitioning with such a drastic change occurring in at pivotal life stage. Youth living with Type 1 Diabetes often feel like they do not have a collaborative healthcare team working for them. Often this mistrust leads to non-attendance to clinical appointments, which can contribute to a deterioration in health (Garvey et al., 2012). It is important for health professionals to assist young adults with Type 1 Diabetes to achieve good health outcomes, by acknowledging the emotional, social and cognitive factors that can impact during transitioning periods (Rasmussen, Ward, Jenkins, King, & Dunning, 2011). Wessiberg-Benchell et al, (2017), identified that there is a substantial gap between a paediatric outpatient clinic environment and adult clinics, and that services did not provide enough support during the time of transitioning. They found that both adult and paediatric services lack resources that are relevant to youth living with Type 1 Diabetes (Wessiberg-Benchell et al., 2017).

The key themes that emerge from the exploration of the international literature are:

- youth living with Type 1 Diabetes have an increased risk of experiencing increases in their HbA1c levels during the transition between paediatric and adult specialist services and that this is linked to an increase in acute hospitalisations and other health consequences,

- that young people report feeling poorly prepared for the transition process and unsupported once they have transitioned to adult services, and this appears to impact on clinic attendance rates,

- that both paediatric services and adult services do not have resources appropriates to the specific needs of youth living with Type 1 Diabetes.

With such a vulnerable group, it is likely their needs are not being met by only having two disciplinary teams working with New Zealand youth living with Type 1 Diabetes.

A NEW APPROACH

Changes in services affect the way in which youth are supported in managing their Type 1 Diabetes; there is a need for a multifaceted service that more closely correlates with the challenges that a young person may be facing. Levy-Sharga et al, (2015) found that the process of transitioning with a tailored approach can contribute to an improvement in HbA1c levels. A dedicated transition clinic was opened for 53 type 1 diabetics to assess if HbA1c levels improved under a tailored service for adolescents. The study showed that this specific service appeared to lead to an improvement in HbA1c levels by 10 percent The transition included specific resources and care for adolescents with Type 1 Diabetes; which led to an improvement in clinic attendance and overall health outcomes for the young people involved. The study concluded that a tailored approach to services, resulted in a successful transition for youth living with Type 1 Diabetes (Levy-Sharga et al., 2015).

RECOMMENDATIONS

The first and most crucial recommendation is for there to be New Zealand based research around the transitioning process of youth living with Type 1 Diabetes. While there are various studies around the globe, there are currently none related to the New Zealand specific health context. With 250,000 people living with Type 1 Diabetes, it is one of the most significant health issues New Zealand is facing (Ministry of Health, 2019), but there is no current New Zealand specific research on the impacts of transitioning youth living with Type 1 Diabetes from paediatric to adult services, and most importantly on how this process impacts on their HbA1c levels.

By working collaboratively, the Ministry of Health, district health boards, and health education providers could conduct research related to the transition process. This could provide information that is relevant to New Zealand's population and enable the Ministry of Health and district health boards to take action as needed. With

such a such a potentially significant gap in the health care system, it is important that further studies measure young people's experiences and health outcomes. This will provide better information around successful transitioning, as recommended by Hodnekvam, Iversen, Brunborg and Skrivarhaug (2020).

Secondly, I would suggest creating a framework for transitioning care relevant to the New Zealand context. Various studies have highlighted that when the process of transitioning is more structured, compliance with monitoring blood glucose levels, taking medication, clinic attendance, and client satisfaction increase. Currently there are no services specifically tailored to youth living with Type 1 Diabetes available in New Zealand. By creating a framework, that is developed collaboratively with young people and their family/whānau, youth living with Type 1 Diabetes will feel more involved, better understood and will ideally be more engaged in their care. With this implemented there is hope that it would contribute to improved overall health outcomes for youth living with Type 1 Diabetes in New Zealand.

CONCLUSION

Having identified the challenges youth living with Type 1 Diabetes face when transition from paediatric to adult services, what we see is a need for a multifaceted approach to the service. As discussed earlier, international research has highlighted the gap between paediatric and adult settings, that both types of service lack specific resources that are needed to support youth living with Type 1 Diabetes, and the negative impacts this can have on their health outcomes.

Although there is significant international evidence which supports the tailored approach to the transitioning of services, there is no current New Zealand specific research. It is recommended that this research is done to gain better insight and understanding of how the transition process affect youth living with Type 1 Diabetes, and the benefits of having a specific services tailored to this group. The Ministry of Health needs to work collaboratively with the district health boards and health care education providers to support this research. If this research is in line with international findings, then the Ministry of Health and district health boards need to work collaboratively with their communities to develop services that truly meet the needs of youth living with Type 1 Diabetes in our country.

Ella Ng is a student currently in her final year of study towards a bachelor's degree in nursing. Ella has had a long-term involvement in diabetes, since being diagnosed at the age of two years, her passion for helping children with long-term chronic condition resonates through this work. Ella is hoping to continue influencing and changing the way diabetes is viewed within New Zealand upon graduation.

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CANNABIS, A GROWING PROBLEM: FOR ADOLESCENTS

Lucy Melchert

INTRODUCTION

Cannabis use amongst the adolescent population is a well-established problem that is not adequately addressed. Education for adolescents about substance use generally has a greater focus on alcohol and cigarettes, and little information about the detrimental long-term effects that frequent use of cannabis can have (Clarke et al., 2014). This is a major issue as Ministry of Health reports show that this age group has the highest rates of past year use of cannabis, as well as being the most strongly represented demographic in studies about the negative mental health effects (Ministry of Health, 2015). Of the negative effects of regular cannabis use, mental health concerns are the most serious and most common. Although research cannot yet definitively determine whether cannabis is a causal factor of psychosis and mental illness, research indicates that cannabis has a significant relationship with psychosis and mood disorders (Hunt, Lenton, & Witton, 2006). As it is a prominent issue within the adolescent population, there should be an increased focus on developing effective methods of educating adolescents to discourage unsafe habits of cannabis use. As children in New Zealand are legally required to attend school until the age of 16 years (Ministry of Education, 2019), school-based educational programmes appear to be the most effective way to ensure that education is delivered to the majority of New Zealand's adolescents. To do this most effectively, collaboration is required from healthcare professionals and educators. This allows for the utilisation of the health professional's expertise on the health effects of cannabis, and the educator's knowledge of how to most effectively deliver information to the adolescent audience (Porath-Waller, Beasley, & Beirness, 2010). This review will further discuss the issue that negative mental health effects that cannabis has, specifically for adolescents; as well as exploring recommendations to maximise the effectiveness of educational programmes designed to decrease adolescent cannabis use.

BACKGROUND

To effectively discourage cannabis use amongst adolescents, there must first be an understanding as to why it is so popular within this demographic. Within the United Nations, cannabis is considered to be the most commonly misused drug (Fergusson & Boden, 2011), and its popularity continues to remain high amongst youth. Reasons for its popularity could be due to the easy accessibility of the drug and the perception that it is less harmful than cigarettes (Gledhill-Hoyt, Lee, Strote, & Wechsler, 2000). As well as this, media has a strong influence on the public's attitude towards cannabis as it is one of the public's main sources of information (Gelders, et al., 2009). Media has depicted cannabis more positively within the last few decades and public perception has followed this lead (Stryker, 2003). In addition, mainstream music and music videos, popular amongst adolescents, reference cannabis uses as frequently as 20 percent of the time. This has a direct influence on the general adolescent attitude toward the drug (Primack, Kraemer, Fine, & Dalton, 2009).

The Canadian Centre on Substance Abuse (2013) carried out a study to understand the general adolescent perception of cannabis. The study revealed that some participants had an accurate impression of the effects of the drug, but many did not. Some participants did not even consider cannabis to be a drug. Common misconceptions

included the belief that cannabis has positive effects on mental health and helps with sleep and creativity. There were also mixed opinions regarding whether cannabis use improved or impaired driving performance. Many did not think that cannabis is or should be categorised as a drug as it is "safe" and made naturally. Participants of the study expressed that they were confused as to why it is not legal as they perceive it to be safer that alcohol and tobacco (Porath-Waller, Brown, Frigon, & Clark, 2013). This study demonstrates that adolescents do not have adequate knowledge to make safe and informed decisions and require education regarding the harms of cannabis use and its long-term effects (Porath-Waller, Notarandrea, & Vaccarino, 2015).

The effects of cannabis

The continued popularity of cannabis poses a challenge (Clarke, et al., 2014). Within the last two decades there has been increasing evidence to suggest that regular cannabis use can have negative effects on mental health, particularly for adolescents. This may be due to adolescents still being in the process of brain development (Fergusson & Boden, 2011). The frequent and heavy use of cannabis can alter structural aspects of the developing brain (Porath-Waller, Notarandrea, & Vaccarino, 2015). The Tetrahydrocannabinol (THC) component of cannabis has been proven to produce acute psychosis causing users to become confused, anxious, agitated and hypomanic. They may also experience hallucinations and delusions. The severity of these symptoms will vary depending on the potency of THC. In a healthy individual without any precursors of mental illness, these symptoms are likely to be experienced short-term. Long-term effects of cannabis are likely to only effect the 10 to 15 percent of adolescent users who use regularly. Within the 10 to 15 percent of regular users, those who have a family history and/or personal history of mental illness are most likely to have long-term consequences (Fergusson & Boden, 2011).

Cannabis and psychosis

Many studies have confirmed the existence of the relationship between heavy cannabis use in adolescence and the development of psychosis (Rey & Tennant, 2002). Commonly cited evidence which suggests a causal relationship, is a study that was conducted in Sweden with over 50,000 participants. Participants were between 18 to 20 years old and were followed up over 15 years. The results of this experiment showed a relationship between cannabis use in adolescence and an increased risk of developing schizophrenia. In addition, the experiment indicated that the regularity and duration of use of cannabis relates to the severity of psychosis (Andreasson, Allebeck, Engstrom, & Rydberg, 1987). This study was followed up by further studies in Australia, Germany, Greece, and New Zealand (Henquet, Murray, Linszen, & Van Os, 2005). The results of these studies confirmed the results of the original study. They showed that compared to non-users, individuals who had used cannabis between 10 to 50 times in their adolescence were three times more likely to develop schizophrenia. For those who had used cannabis greater than 50 times, there were six times as many cases. One of the studies showed that those who had regularly used cannabis in their adolescents are two to three times more likely to develop schizophrenia (Rey & Tennant, 2002). Another study conducted in the Netherlands presented similar results and suggested that if participants had not had exposure to cannabis, the requirement for the treatment of psychosis could have been reduced by 50 percent (Van Os, et al., 2002). Similarly, other studies have suggested that, if cannabis use was removed from the general population of adolescents, eight percent of schizophrenia diagnoses could be prevented (Beer, 2007). The relationship between cannabis and psychosis can be explained by the permanent changes to the brain caused by repeated exposure to the THC component of cannabis. THC works on the cannabinoid receptors in the brain which directly affect the amount of dopamine released. With the excess production of dopamine, schizophrenic symptoms can occur (Beer, 2007).

Cannabis and mood disorders

In addition to psychosis disorders, evidence suggests that there is a relationship between the frequent use of cannabis and the development of mental health issues such as depression, anxiety and suicidal thoughts (Rey & Tennant, 2002). Adolescents are the most strongly represented demographic in these findings (Hall, 2006).

Evidence of this relationship can be seen in studies such as a national population study conducted in Australia in 2001. The results of this study suggested that in non-users of cannabis, six percent had a mood disorder. In contrast, of those with a cannabis dependence, 14 percent were reported to have a mood disorder (Degenhardt, Hall, & Lynskey, 2001). Another study conducted in Australia followed adolescents over a seven-year period. The results of this study showed that the weekly, or more frequent use of cannabis by secondary school adolescents, doubled their chance of developing anxiety or depression by the age of 20 years. The study also suggested that there was a dose-effect relation between cannabis use and severity of depression and anxiety amongst participants (Patton, Coffey, Carlin, Degenhardt, & Lynskey, 2002). A Christchurch study also indicated that there is an association between heavy cannabis use in adolescence and the later development of depression and suicide attempts. This study suggests that cannabis use in adolescence directly contributes to mental health outcomes (Fergusson, Horwood, & Swain-Campbell, 2002).

IMPLICATIONS

Although not all researchers agree that cannabis is a causal factor of psychosis and mental illness, the studies appear to indicate a strong relationship (Hunt, Lenton, & Witton, 2006). Heavy cannabis use has been shown to have a triggering effect in predisposed individuals, causing the development or relapse of psychosis, or exacerbation of symptoms. Higher rates of depression and suicidal ideation are also prevalent amongst regular cannabis users (Rey & Tennant, 2002). As many as 10 to 15 percent of cannabis users report their level of use as heavy and dependent. Cannabis use has a significant impact on the severity of mental health within New Zealand (Fergusson & Boden, 2011). Data collected by the Canadian Centre on Substance Abuse showed that between the years of 2006 and 2011, adolescents aged 15 to 24 spent the most time in in hospital due to cannabis-related mental and behavioural disorders when compared to other age groups. The data also showed that over these years there was a 40 percent increase in the time spent in hospital for reasons related to cannabis use by this age group (Young & Jesseman, 2014).

If cannabis use decreased amongst adolescents, severity and treatment required for psychosis and depression may be reduced (Van Os, et al., 2002), as well as the number of hospital stays (Young & Jesseman, 2014). This would reduce the demand on mental healthcare resources and impact the workload in some areas of mental health nursing (Young & Jesseman, 2014). This is particularly beneficial as only 7.6 percent of New Zealand nurses work in the mental health and addictions specialty resulting in it being categorised as "hard to staff" (Ministry of Health, 2016).

RECOMMENDATIONS

Effective school based educational programmes

School-based programmes have been shown to have varying success in decreasing adolecent cannabis use depending on the delivery style, the model of the programme and the number of sessions. Research shows that programmes that run for 15 or more sessions (Porath-Waller, Beasley, & Beirness, 2010) and are directed at adolescents aged 12 to 16 years old are most effective (Norberg, Kezelman, & Lim-Howe, 2013). This is because cannabis use is usually initiated between the ages of 12 and 16 years old, therefore, implementing effective education programmes for this this age-group may help decrease the initiating of cannabis use by young adolescents (Hotton & Haans, 2004; Porath-Waller, Beasley, & Beirness, 2010).

The method of delivery of the education has been shown to have the most significant impact on the success of the programme (Lize, et al., 2017). Interactive and collaborative delivery methods which allow opportunities for participants to engage with others, are significantly more effective than didactic teaching methods (Tobler, et al., 2000). The individual delivering the programme also has an impact. Studies have shown that programmes run by

teachers often have poorer outcomes than those delivered by healthcare professionals, or people with personal experience. Generally, the training that healthcare professionals have received provide them with better skills to execute the programme effectively, and people with personal experience with drug abuse are perceived, by adolescents, to be more credible sources of information (Porath-Waller, Beasley, & Beirness, 2010; Tobler, et al., 2000). Collaboration between healthcare professionals and educators when developing and delivering the educational programme will maximise its effectiveness (Porath-Waller, Beasley, & Beirness, 2010).

The model of the programme can also impact its success. Evidence suggests that programmes based on the social influence model are more successful compared to informational or affective models (Tobler, et al., 2000). Other research suggests that a programme based on a combination of the models is most effective as it will address a broader range of risk factors of adolescent cannabis use. The informational model focuses on the harmful consequences of cannabis use and relies on the facts to motivate participants to make anti-drug decisions. For adolescents, the distant prospect of lung disease or a psychotic illness, does not appear to provide enough motivation to significantly impact participant attitudes towards cannabis (Porath-Waller, Beasley, & Beirness, 2010). The social influence approach, however, has shown more success (Das, Salam, Arshad, Finkelstein, & Bhutta, 2016). This model has an increased focus on the effects that cannabis use can have on relationships with peers and family as well as how it will affect the day-to-day life of participants. It uses role models, such as older peers, and emphasises that most people do not use drugs. It also aims to inform adolescents of the consequenses of drug use as well as the benefits of non-use. This model works to increase confidence and develop decision-making skills so that adolescents are able refuse and resist pro-drug influences. Programmes based on this model are typically more interactive and collaberative, and avoid didactic teaching styles (Porath-Waller, Beasley, & Beirness, 2010). As there is more evidence suporting the success of programmes based on the social influence model (Tobler, et al., 2000), it is recommended that future programmes should be based on the this model. Programmes, however, may be improved if they incorporate some aspects of the informational model to ensure that adequate knowledge and facts of long-term effects of cannabis use are delivered to adolescents as well as the advantages of the social influence model.

A review of evidence also indicates that it is beneficial for programmes to undergo regular evaluation. This enables a process of ongoing refinement (Porath-Waller, Beasley, & Beirness, 2010).

Utilising media

Research has shown that although school-based programmes are effective, interventions are most effective when several techniques are used collaboratively to deliver a singular, strong message (Ministry of Public Health of Belgium, 2002). A popular method of substance use education which targets a broad audience is the media campaign (Das, Salam, Arshad, Finkelstein, & Bhutta, 2016). Although there is limited research surrounding the effectiveness of media campaigns on the reduction of adolescent cannabis use (Hunt, Lenton, & Witton, 2006), media campaigns have been shown to be an effective method of providing tobacco education to adolescents resulting in reduced smoking initiation (Das, Salam, Arshad, Finkelstein, & Bhutta, 2016). Hunt, Lenton and Witton (2006) state that public health approaches regarding reducing cannabis use amongst adolescents has many parallels to methods used to address tobacco and alcohol use, therefore, media campaigning may be an effective method of providing education to adolescents regarding cannabis use. To use media campaigning most effectively, the campaign should correspond with the school-based educational programme. The collaboration of these two intervention strategies would increase the effectiveness of both interventions as the media campaign will reinforce the knowledge that adolescents learn through their programme (Ministry of Public Health of Belgium, 2002). Research has shown that media campaigning is most effective when research is put into its design so that it appeals to the specified audience. The campaign should also deliver a strong message over a moderate duration (Das, Salam, Arshad, Finkelstein, & Bhutta, 2016). A media campaign for this purpose should convey consistent messages with the school-based programme. Themes of the messages should coincide with the social intervention model and provide information about the effects of cannabis use on school performance and social relationships as well as

some information about long-term mental health impacts of heavy cannabis use. Considering the target audience of this media campaign, it would be appropriate to use formats such as posters, flyers and digital media to educate this audience (Thornley & Marsh, 2010).

CONCLUSION

Evidence appears to indicate that regular and heavy cannabis use has a strong relationship with psychosis, depression and suicidal ideations (Rey & Tennant, 2002). This relationship is most strongly evident in the adolescent population, making the popularity of cannabis use amongst New Zealand adolescents an issue that should be addressed (Ministry of Health, 2016). As indicated earlier in this review, I believe that the most effective method of reducing adolescent cannabis use is through a school-based education programme based on the social intervention model. The programme should be developed and executed collaboratively with healthcare professionals and educators to be most effective (Porath-Waller, Beasley, & Beirness, 2010). Alongside the school-based programme, a concurrent media campaign will also be beneficial to expand and solidify adolescent knowledge on the risks and effects of cannabis use (Ministry of Public Health of Belgium, 2002). The collaborative implementation of these interventions for young adolescents may reduce the rate of cannabis use initiation and improve general adolescent mental health.

Lucy Melchert is a third-year nursing student at Otago Polytechnic. Her interest in the topic of adolescent mental health was motivated though her experiences throughout her study at her mental health placements. She specifically was interested in researching the topic of adolescent substance abuse as it is a prevalent issue in New Zealand that will impact her practice.

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LET'S TALK ABOUT SEX: A ROLE FOR NURSES AND TEACHERS IN SECONDARY SCHOOLS

Madison Gartner

INTRODUCTION

Sexual and reproductive health is an essential component of healthy youth development. Sexuality education in secondary schools is an excellent opportunity for collaboration between nurses and teachers to provide a thorough and multi-faceted approach that best meets students' needs (Allen, 2011). Sexuality education is a mandatory part of the New Zealand Curriculum for Years 1 through Years 10 (Ministry of Education, 2019). The Ministry of Education (2015) published sexuality education guidelines to better meet the changing social environment and broader understandings of sexuality. Despite the development of these guidelines, the 2018 Education Review Office (ERO) report shows there are still large inconsistencies in teaching. Over half of New Zealand schools are not teaching sexuality education to a high standard, and the overall delivery of sexuality education has scarcely changed since the previous 2007 report. As sexuality education currently lacks quality and consistency, a priority in New Zealand Health and nursing should be to provide effective sexuality education for all youth (Education Review Office [ERO], 2018; Garland-Levett, 2017). School nurses and secondary school teachers play a critical role in providing sexuality education for youth. Therefore, assessing the two professions' ability to teach sexuality education effectively could establish a more effective strategy for sexuality education delivery (Allen, 2011; Ministry of Education, 2015). This paper will explore the effectiveness of nurses and secondary school teachers as sexuality educators, and how an improved collaborative approach could have a significant positive impact in delivering effective sexuality education.

BACKGROUND

Sexuality education curriculum coverage continues to be inconsistent across New Zealand. Biological aspects of sexuality and puberty are covered thoroughly, but aspects such as consent, digital technologies, gender and sexual diversities, sexual violence, and pornography need further depth of coverage (ERO, 2018). The in-depth coverage of biological aspects of sexuality can be seen through the improvement of high-level indicators of sexual heath in youth, with the rate of sexually transmitted infections (STIs) decreasing between 2010 and 2014 (The Institute of Environmental Science and Research Ltd., 2015), the rate of teenage pregnancies decreasing between 2001 and 2013 (Statistics New Zealand, 2013), and the reduction of young women having abortions (Statistics New Zealand, 2017). These changes could also be attributed to other initiatives such as the introduction of Standing Orders for nurses to treat STIs in schools (Denny et al., 2014). While these improvements are encouraging, sexuality education needs to meet a much broader range of well-being outcomes than these statistics can provide, and with fewer inconsistencies across schools (ERO, 2018).

Sexuality education in schools is usually the first opportunity to promote sexual and reproductive health. Therefore, optimising sexuality education for New Zealand secondary school students is important because it supports the healthy development of New Zealand youth who are our future (Ministry of Health, 2017). It is crucial that the

educator who delivers sexuality education is knowledgeable in the subject and comfortable in delivering it. An effective sexuality educator that is knowledgeable and comfortable in their delivery is pertinent to successfully supporting youth to positively learn about and experience their sexuality (Allen, 2009). Currently the majority of New Zealand secondary school students are taught sexuality education by their regular teacher, however, the ERO (2018) report suggests that teachers are often uncomfortable teaching beyond biological aspects of sexuality and miss broader outcomes for sexual and reproductive health (ERO, 2018; Family Planning, 2019). School nurses can be an additional source of sexuality education through school-based clinics or periodic school visits. School nurses are present in the majority of New Zealand secondary schools and are viewed as professionals with good knowledge of sexual and reproductive health (Allen, 2009; ERO, 2018). Assessing the strengths and weaknesses of both nurses and teachers in delivering sexuality education could provide a foundation for an optimal collaborative approach in delivering sexuality education to secondary school students.

Assessing whether the delivery of sexuality education is effective can be challenging. A reduction of Sexually Transmitted Infections (STIs) and unplanned pregnancies in youth are thought to be the best indicators of effective sexuality education by many adults, however, Allen (2005) suggests that New Zealander's youth have differing views on what effective sexuality education looks like, for example more extensive discussion around safe use of technologies. This is likely because sexuality education is more extensive than the physical aspects of safe sex as it also covers emotional, social, and spiritual aspects. Therefore, it is important to consider what students conceptualise as effective for themselves (Allen, 2005). With consideration to these perspectives, a literature review was completed to examine how effective teachers and nurses are in the delivery of sexuality education to secondary school students. Despite sexuality education being a topical issue in New Zealand, there remains little evidence to address how nurses and teachers could collaborate to deliver it. The review of literature examined five qualitative studies that included school student discussions about how effective teachers and nurses were at teaching sexuality education, and one quantitative study that used a group-randomised intervention study to examine the differential impacts between nurse-led and teacher-led sex education. The literature indicates that secondary school students prioritise the independent qualities that the educator possesses over the type of sexuality educator, that is, a nurse or a teacher. Therefore, the strengths, limitations and independent qualities of teachers and nurses should be considered to better enhance sexuality education (Allen, 2009; Borawski et al., 2015).

DISCUSSION

Secondary students from both New Zealand and overseas report inconsistencies in teacher competency in teaching sexuality education. Where some teachers are especially effective, others struggle and limit discussions due to embarrassment and discomfort around the subject content (Allen, 2009; Lester & Allan, 2006). Teachers who keep a narrow focus tend to teach strictly to the curriculum requirements leaving students feeling reluctant to express themselves freely and ask questions (Kimmel et al., 2012). Furthermore, many students feel judged by some teachers and are concerned about their indiscretion, with particular anxiety around information being shared that may negatively impact other parts of their school life (Allen, 2009; Kimmel et al., 2012). There is also an issue with teachers failing to control bigoted and homophobic comments made by other students, which creates an environment where students feel unable to participate safely. These fears of judgement and confidentiality lead to poor engagement from students in their sexuality education and thus reduces its effectiveness (Allen, 2005). Despite these criticisms, many secondary school students still prefer teachers as their sexuality educators (Allen, 2009). While some teachers find sexuality education challenging, others are exceptional when they are more comfortable with the subject content. Some students have reported finding their teacher more prepared, comfortable, and informative in comparison to other educators such as nurses. This is likely because teachers are well known to students and therefore have more opportunities to develop rapport and trust (Allen, 2009; Borawski et al., 2015). Students tend to favour their teacher as the ideal sexuality educator when they have a pre-existing safe and comfortable relationship (Allen, 2009).

Nurse-led sexuality education is far less common in secondary schools; however, many students have had interactions regarding their sexual and reproductive health with nurses in other contexts such as school nurse clinics, public health nurses, and practice nurses in the community. Despite limited experiences with nurses as sexuality educators, several secondary school students believe nurses are the ideal sexuality educators (Allen, 2009). Secondary school students generally perceive nurses as more credible sources of information who possess greater medical knowledge relating to sexual and reproductive health. The nurse's scope of knowledge and practical experience is incredibly valuable, especially when facilitating open discussions and answering questions (Allen, 2009; Kimmel et al., 2012). Qualities such as being authoritative, knowledgeable, and comfortable with sexuality education were more often attributed to nurses than teachers (Allen, 2005). Moreover, many secondary school students believe nurses are more approachable and confidential, and less judgmental on the topic of sexuality than teachers generally are (Kimmel et al., 2012). A nurse's anonymity as an educator can be very favourable to students who may feel embarrassed sharing information and engaging in activities with someone they see regularly (Allen, 2009; O'Higgins & Gabhainn, 2010). Secondary school students also find individualised nursing services outside of sexuality education favourable as they are able to extend their knowledge in a more confidential setting (Kimmel et al., 2012). Care should be taken by nurses not to make inaccurate assumptions about students' sexual behaviour as these assumptions can make them feel alienated and result in disengagement from learning (Kimmel et al., 2012).

Understanding what secondary school students perceive makes an effective sexuality educator is fundamental if educators wish to best address the students' needs and interests (Allen, 2009). Secondary school students generally share similar views on what educator qualities are effective in teaching sexuality education. Being knowledgeable, professional, and specialist are the most popular qualities students favour in a sexuality educator. Relatability, openness, and the ability to speak candidly about sexual issues are also greatly valued (Allen, 2005; Allen, 2009). While more students associate nurses with these ideal qualities, some students associate teachers with them instead. Students attribute the same positive qualities to all educators, indicating that ideal characteristics are not perceived as belonging specifically to an educator type. This implies that the relationship between the educator type and the best educator qualities may be more random (Allen, 2009).

Evidence shows that both teachers and nurses can be effective in significantly improving secondary school student's knowledge of HIV, STIs, and condoms. However, secondary school students taught sexuality education by nurses tend to report more significant and prolonged changes compared to those taught by teachers (Borawski et al., 2015). Secondary school students taught by nurses show greater sustained positive changes in attitudes, beliefs, and self-efficacy than those taught by teachers (Borawski et al., 2015). Nurses' ability to build self-efficacy and self-competence in individuals is a valuable characteristic for an educator as effective sexuality education requires youth to learn behaviours that will protect their sexual and reproductive health long-term (Borawski et al., 2015).

A collaborative approach would be ideal so that the strengths of both nurses and teachers can be utilised to optimise sexuality education for secondary school students. While classroom teachers are able to convey knowledge well, they could do with support in achieving better long-term sexual health results for their students. Comparatively, nurses are particularly useful in assisting students to build life-long skills and reduce risky sexual behaviours (Borawski et al., 2015). A teacher is more suitable to provide a known and comfortable environment for students who prefer a sexuality educator that they have an established rapport with. Meanwhile, nurses are able to provide anonymity for those students who prefer an unknown educator and for those who may feel judged and unsafe elsewhere (Allen, 2009; Borawski et al., 2015). Qualities and characteristics will always vary between individuals; therefore it is important for secondary school teachers and school nurses to work together to coordinate an effective collaborative approach.

RECOMMENDATIONS

Involving school nurses in classroom sexuality education is the ideal recommendation, however, it is not realistic for most schools to implement effectively. This is because school nurses already have busy workloads and are unlikely to be able to commit additional time outside of their normal practice to partake in classroom sexuality education. Fiscal constraints are another issue, as introducing non-teacher educators is likely to be unsustainable. These concerns have been taken into account in order to make realistic and effective recommendations (Borawski et al., 2015; Edmond, 2018).

1. Build teacher capability

The first recommendation is to build teacher capability through on-going professional development (Borawski et al., 2015; Edmond, 2018). Sexuality education should be taught be teachers who are committed, well-trained and participate regularly with health education professional development (ERO, 2018; Family Planning, 2019). Up-to-date professional development and training should be accessible to all teachers in order to successfully improve their confidence and capability in delivering effective sexuality education. This will involve ensuring that teachers have excellent basic knowledge of sex, sexuality and reproductive issues, are confident in their skills and ability to teach the topic, understand their role in promoting sexual health, and know the current and relevant information on local services and how students can access them (ERO, 2018; Thistle & Ray, 2002).

2. Make use of sexuality education guidelines

The second recommendation is for teachers to be guided by *Sexuality Education: A guide for Principals, Boards of Trustees and Teachers* (Ministry of Education, 2015) to ensure quality sexuality education is provided. This guide covers a broader range of issues that address the changing needs of youth such as, sexual health, reproduction, relationships, identity, gender and sexual diversity, consent, internet safety, and pornography. Quality sexuality education should build on two core aspects, identity and relationships (Family Planning, 2019; Ministry of Education, 2015). Further teaching and education sessions need to be held at schools to improve teacher understanding. To ensure guidelines are being used appropriately, ongoing evaluation of teachers' performance in sexuality education needs to occur.

3. Use a collaborative approach between teachers and nurses

The third recommendation is to optimise a collaborative approach between teachers and nurses in providing sexuality education to secondary school students. Implementing this recommendation could involve a nurse-led classroom session as well as encouragement of one-on-one discussions with a nurse such as through a school clinic (Borawski et al., 2015; Kimmel et al., 2012). School nursing clinics are already available in many secondary schools, however many students are still missing out. Therefore, nurse clinics need to be available in as many schools as possible (Buckley et al., 2009). Teachers need to be aware of their nurse clinics so that they can promote and direct their students to seek assistance when appropriate. An emphasis should be placed on the anonymity of school nurse clinics to encourage those who prefer a more private setting (Allen, 2009; Borawski et al., 2015). Secondary school teachers and school nurses need to establish a good relationship to coordinate an effective collaborative approach that best addresses the wide range of student needs and preferences.

CONCLUSION

The inconsistencies of sexuality education throughout New Zealand secondary schools is an issue that persists despite continuous attempts to make change (ERO, 2018; Ministry of Education, 2015). Most sexuality education takes place in the classroom; therefore, this teaching time should be optimised. Secondary school teachers have a key role as sexuality educators, yet many teachers are unable to provide students with the quality sexuality

education they require. There is a clear need for continuous professional development to improve teacher's capability and build positive characteristics for teaching sexuality education (Allen, 2005; Kimmel et al., 2012). Furthermore, secondary school teachers would benefit from reinforcement of the new sexuality education guidelines from the Ministry of Education (2015). Nurses also play an important role in sexuality education, often through nurse-led clinics. The unique skill set of nurses is particularly useful in building self-efficacy in students to produce more sustained changes that improve students sexual and reproductive health (Borawski et al., 2015). The strengths and limitations of teachers and nurses should be considered on an individualised basis to develop an effective collaborative approach to sexuality education in secondary schools.

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Madison Gartner is a third-year Bachelor of Nursing student at Otago Polytechnic. She enjoys the range of opportunities nursing provides and the connection with the community it allows. Madison hopes to work as a Practice Nurse in the future and has a passion for sexual health and women's health.

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CHILDREN WITH DISABILITIES COMMUNITY ASSESSMENT – AUTISM

Sarah Boomer, Libby Blore, Sian Louden, Nicola McQuillan, Maddie Nash, Ailing Pang, Sarah Roy and Laurie Mahoney

INTRODUCTION

This group of seven third-year Bachelor of Nursing learners at Otago Polytechnic undertook a community development project for their Primary Health Practice in 2020 in Dunedin, New Zealand. The learners applied the Community Health Assessment Sustainable Education (CHASE) model (Ross, Crawley & Mahoney, 2017) to complete a community profile of children with disabilities. The model allows nursing students to view primary health nursing from a sustainable and population-based approach, where health needs in communities are identified by a process of profiling the community and applying a needs analysis to identify health needs that the students then research to develop a sustainable approach or resource to reduce the need within the community.

Over the period of 2016-19, nursing students profiled the lower South Island areas of Otago and Southland, concentrating on rural/semi-rural populations. In 2019, it was noted that professionals working in the city areas (primarily Dunedin city) were somewhat reluctant to engage with students. With this in mind, and with the awareness that the lecturers did not want to 'over research' populations, it was decided that population aggregates would be researched by the majority of third-year learners in 2020. Individual groups of up to nine learners researched aggregates including children with disabilities concentrating on Autism, adults living with Multiple Sclerosis (MS), Cerebral Vascular Accidents (commonly known as strokes), Diabetes, and Chronic Obstructive Pulmonary Disorder (COPD). This is the first report from this group of learners and focuses on children living with disabilities, particularly Autism.

The lecturing staff identified the broad topic of people with disabilities and chronic health conditions as the core topics for learners to research. After brain-storming the wider topic, the learners then decided to concentrate on children with disabilities in New Zealand and then further narrowed their project down to focus on the needs of children with Autism Spectrum Disorder (ASD).

The CHASE model (Ross et al., 2017) builds on the Community-as-Partner model (Anderson & McFarlane, 2008). The leaners report included in-depth information on all eight subsystems, however the community profile for this report is limited to the politics and education, and then explores Autism in greater depth.

PART 1: COMMUNITY

According to the 2013 New Zealand Statistics it is noted that 24 percent of the population have some form of a disability with many people identifying as having more than one impairment or condition and 53 percent of those with disabilities in New Zealand having multiple disabilities (Statistics New Zealand, 2013).

The three main types of disabilities are physical, intellectual, and mental health, with intellectual disabilities being the most common (Statistics New Zealand, 2019). The main impairments caused by disabilities varies between children and adults with the main impairments experienced by New Zealand adults are physical (18 percent) compared to 1 percent for children. The most common impairment in children is psychological/psychiatric (4 percent), although 'other' includes learning, developmental delay, and speech is 7 percent (Statistics New Zealand, 2013).

Although disabilities affect everyone, regardless of socioeconomic status, ethnicity or gender, there are still disparities and inequities regarding the amount of people that are affected. Māori have disproportionately higher numbers of disabilities within their population. The 2013 Disability Survey found that Māori are more likely to be disabled (26 percent) than non-Māori (24 percent). The disparity is even higher among children as Māori children have a disability rate of 15 percent, whereas non-Māori children have a disability rate of 9 percent (Statistics New Zealand, 2013).

The biggest struggle for children with a disability in New Zealand is social interaction with peers in a variety of social settings. According to Statistics New Zealand (2019), children with disabilities are far less likely to participate in social events, such as sports teams. A key indicator in recognizing the first signs of a child developing an intellectual disability is the child's inability to interact with their peers (Ministries of Health and Education, 2016). Intellectual disabilities are often marked by developmental delays, which can be identified early by the child's parents/caregiver, early childhood educators, Plunket/Well Child nurses and the child's general practitioner (GP) (Ministries of Health and Education, 2016, Plunket New Zealand, 2020).

Along with difficulty in social interaction, communication with a child who has an intellectual disability can be tough, particularly if they are non-verbal. At school, the all too common noise and busy classrooms, effect many children's ability to concentrate on their learning, with sensory overload being an additional challenge for many children with disabilities. Therefore, managing the environment for the child is important (Altogether Autism, 2020). Communicating with the child's school and managing the environment around the family home is key to the prevention of sensory overload (Ministry of Education, 2020). Loud noises and new environments can be overwhelming for children with intellectual disabilities and this is important to recognise as the child may not be able to express that sensory overload is what they are experiencing (Ministry of Education, 2020). The use of simple toys can help with calming children down, such as stress balls, a fun timer, and the use of different textures the child can touch (Altogether Autism, 2020).

Children with physical disabilities can also struggle to communicate with their peers, particularly in a busy social setting (Ministries of Health and Education, 2016). For children with disabilities, this can be even more challenging as they can be seen as different by their peers, and children with Autism, the lack of social awareness about the condition makes it harder to form connections (Lindsey & McPherson, 2011).

Statistics from the New Zealand Disability Survey (2013) identified the following:

- 24 percent of children with disabilities have an unmet need for help with their schoolwork in class.
- 13 percent have an unmet need for special equipment to aid their learning.
- 28 percent have an unmet need for adapted classroom materials.
- 20 percent of children with a disability have had their schooling interrupted for a long period of time.
- 19 percent have difficulty attending school for the whole day (Statistics New Zealand, 2013).

These statistics show a huge disparity in schooling among children with disabilities. Not only do many of these children face disadvantages due to impairments, bullying and discrimination is prevalent for these children as they are at higher risk than their more abled peers (Lindsay & McPherson, 2011). This contributes to a plethora of issues, making it difficult for children with disabilities to remain in mainstream schooling.

Politics and Government

The Ministry of Health (2015) states in the 2013 New Zealand Disability Survey that 121,000 children in New Zealand identify as having a disability. The New Zealand Government, via the Ministries of Health and Education have strategies and action plans in place to assist and support children with disabilities.

The Disability Strategy 2016-2026 has the vision to ensure disabled people receive the same opportunities as non-disabled people to achieve their goals. This strategy ensures disabled people are treated fairly, that they have access to a better quality of life, can make their own decisions, and feel a part of the community. Figure 1 shows the eight streams of the Disability Strategy 2016-26 (Office for Disability Issues, 2019).

Figure 1. New Zealand Disability Strategy 2016 to 2026. Source: Office for Disability Services (2016), (published with permission).

The Māori Disability Action Plan – Whaia Te Ao Mārama 2018-2022 is a culturally anchored approach to support Māori with disabilities. The aim of this action plan is to establish priority areas of action and enable Māori with disabilities and their whanau to attain a good quality of life that meets their aspirations (Ministry of Health, 2018). Whaia Te Ao Mārama was developed in partnership with the Māori Disability stakeholders, with oversight and endorsement of Te Ao Mārama.

The Māori Disability Action Plan provides advice to the Ministry of Health on issues that affect Māori with disabilities (tāngata whaikaha Māori) as well as the effectiveness of the plan's implementation. The group includes tāngata

whaikaha Māori, whānau of tāngata whaikaha Māori, Māori that work within the disability sector and experts on Māori cultural matters (Ministry of Health, 2018). The vision of Whaia Te Ao Marama: "Tāngata whaikaha pursue a good life with support" can be seen in Figure 2 (Ministry of Health, 2018, p.3).

Te Rangatira
Tāngata whaikaha are informed, consider options and make decisions for self. Tāngata whaikaha are able to take responsibility for guiding or leading others.

Te Ao Māori
Tāngata whaikaha are active in whānau, hapū and iwi including hui, tangihanga, iwi development and celebrations. Tāngata whaikaha contribute to whānau, hapū and iwi.

Ngā Tūhonohono
Tāngata whaikaha can connect between Te Ao Māori and Te Ao Hurihuri while maintaining their mana.

Te Ao Hurihuri
Tāngata whaikaha are active in the wider community including social networks, employment (or education) and health and other services.
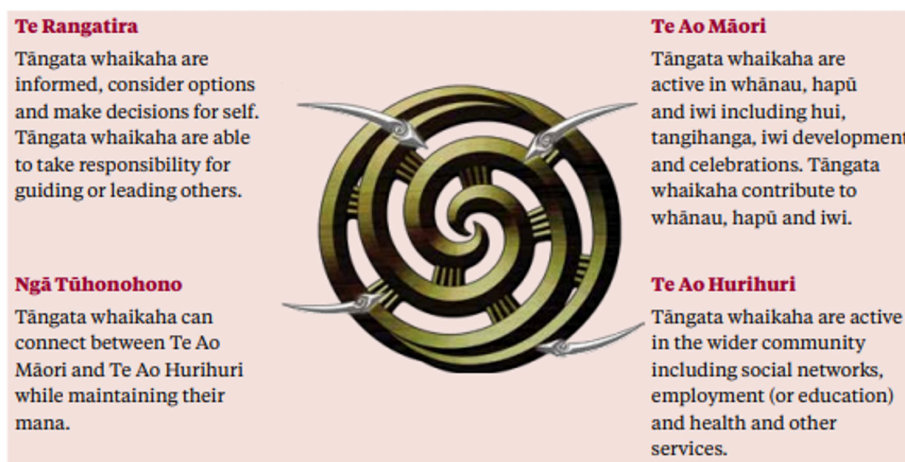
Figure 2. The Māori Disability Action Plan, 2018 to 2022. Source: Ministry of Health (2018).

The image displayed in Figure 3 signifies a torino (double spiral), symbolizing "the world of light that was created with the separation of Ranginui and Papatūānuku" (Ministry of Health, 2018, p.3). Each element represents an aspect of Whaia Te Ao Mārama and the actions and priorities in this plan are to support Māori with disabilities on this pathway (Ministry of Health, 2018).

PART 2: CHILDREN WITH AUTISM

Autism Spectrum Disorder (ASD) is a lifelong neurodevelopmental condition that affects how people perceive the world, how they think and behave, as well as how they communicate and interact with others (Ministries of Health and Education, 2016). ASD is not an illness or disease and cannot be 'cured', rather Autism is a spectrum condition, meaning that some people are affected more than others. For example, some autistic people do not use spoken language, while others have excellent spoken language skills but may find it difficult to understand what other people are attempting to communicate (Very Well Health, 2019).

While all autistic people share some common differences in the way they hear, feel and see the world, they all have different strengths, abilities and challenges which affect their lives in different ways, at different ages and in different environments. This is because Autism is a spectrum, and people diagnosed with this condition present with various traits and behaviours. Because of this no two people with ASD will be the same (Altogether Autism, 2020).

"On the spectrum" usually refers to a specific set of behavioral and developmental problems and the challenges associated with. A diagnosis of ASD means that a child's communication, social, and play skills are affected in some way. Experts use different terms to describe ASD. These include:

- Pervasive Developmental Disorder (PDD).
- Pervasive Developmental Disorder-not otherwise specified (PDD-NOS).
- Asperger Syndrome.
- High functioning Autism.

Classic Autism, or Autistic Disorder, is the most severe of the ASD disorders. Milder variants are known as what used to be referred to as Asperger's Syndrome, sometimes known as high-functioning autism, and PDD-NOS, or atypical autism. According to the Autism Spectrum Resource Center, only 20% of people on the Spectrum have 'classic autism'. The overwhelming majority fall somewhere on the milder range of the Spectrum (Altogether Autism, 2020). Recently however, Asperger's Syndrome has been removed from the diagnostic manual, leaving only one general category of Autism (Autism NZ advocate, personal communication, February 11, 2020).

It is important to note, however, that there is no official diagnosis of 'high' or 'low' functioning Autism, instead they are terms used to help determine and explain one's level of functioning. People with high functioning Autism do not have an intellectual disability, however they struggle with social interaction, social isolation as well as employment. People with low functioning Autism are those who are often non-verbal, struggle with daily activity and may require extra care and attention (Very Well Health, 2019).

Some people with Autism may also have cognitive difficulties while others have mental health issues, most commonly anxiety, depression and Attention Deficit Hyperactivity Disorder (ADHD). The differences between people in terms of their Autistic traits and the impact of other conditions means that people need different levels of support (Ministries of Health and Education, 2011). With the right support, all autistic people can lead fulfilling lives and live as part of their community (Altogether Autism, 2020).

Identifying Autism

To determine whether a child has Autism, a related ASD, or a different developmental condition, health professionals assess how the child pattern of behaviour including how they socialise, communicate and behave. The team of specialists involved in diagnosing a child may include:

- Child psychologists
- Child psychiatrists
- Speech pathologists
- Developmental pediatricians
- Pediatric neurologists
- Audiologists
- Physical therapists
- Special education teachers.

Determining where a child falls "on the spectrum" is not a brief process. There is no single medical test that can definitively diagnose it; instead, to accurately pinpoint a child's problem, multiple evaluations and tests are necessary (Milestones Day School and Transitions Programme, 2020).

Diagnostic Process

Before the diagnostic process, according to Autism.org.nz, parents may wish to complete an online screening test, such as the test: ASDetect. These tools do not provide a formal definitive diagnosis, but they can help guide a parent's decision as to whether or not they want to pursue their concerns.

If ASD is suspected, the child and caregiver should meet with their family general practitioner (GP) to discuss concerns regarding the child's behaviour and suspected symptoms. The GP will refer children onto a developmental paediatrician for an assessment of ASD. Following this the child will be referred to a child psychiatrist, clinical psychologist, or perhaps a team of clinicians that could potentially include a speech language therapist or occupational therapist. The diagnosis provided may confirm ASD or suggest another cause for the behaviour observed. This process is often very time consuming, taking many months or years to form a definitive diagnosis.

Diagnosis Criteria

The Diagnostic and Statistical manual of Mental Disorders (5th edition), or 'DSM-5', produced by the American Psychiatric Association is used to diagnose ASD.

The DSM-5 defines ASD as "persistent difficulties with social communication and social interaction" and "restricted and repetitive patterns of behaviours, activities or interests" (this includes sensory behaviour), present since early childhood, to the extent that these "limit and impair everyday functioning (National Autistic Society, 2016). The DSM-5 lists the signs and symptoms of ASD and states how many of these symptoms must be present to confirm a diagnosis of ASD. Professionals diagnose ASD on the basis of difficulties in a minimum of two areas: social communication, and restricted, repetitive behaviour or interests.

To be diagnosed with ASD, a child must have difficulties in two areas and have had symptoms from early childhood, although many if these are not picked up until later in childhood. An ASD diagnosis includes a severity ranking, which is used to show how much support a child requires:

- Level 1: needs support
- Level 2: needs substantial support
- Level 3: needs very substantial support (National Autistic Society, 2016).

Length of Diagnosis

The duration of time a diagnostic assessment takes depends on a number of factors, including the age of the child, their symptom severity and the type of assessment. Studies show that a valid clinical diagnosis can often be made by the time the child is aged 2-3 years but only in the more severe forms of Autism e.g. non-communicative. However, diagnosis is more difficult in young children who are more able, and in those with general developmental delay (Altogether Autism, 2020). Successful identification of ASD in young children and the effectiveness of early intervention programmes are dependent on the ability of primary care providers to monitor children's development and initiate referrals in a timely manner.

According to Zuckerman, Lindly and Chavez (2017), the "mean age of diagnosis was 4.4 years, and mean diagnostic delay was 2.2 years" (p. 33). A diagnostic assessment may take as little as one hour for a young child presenting with severe symptoms. However, children with less severe symptoms are more difficult to diagnose, with some people not being diagnosed until their early teens (Altogether Autism, 2020). Teachers, Well Child nurses, GPs and other members of the primary health care team are therefore central to early identification.

Additionally, throughout New Zealand there is no consistent referral and assessment pathway for children with ASD (or indeed children with other developmental problems). Multiple potential referral points exist, such as Child Development Services or Ministry of Education, but there is no single service with the designated overall responsibility for coordinating assessments. This leads to confusion amongst parents and primary health care providers about what to do when a child is identified as showing some autistic features. The recommended pathway leading to the assessment of a young child, older child or adolescent with suspected ASD is summarised in four steps:

1. Developmental surveillance
2. Identification of developmental concerns and appropriate referral
3. Appropriate referral and developmental service coordination
4. Multidisciplinary assessment (Ministry of Health and Education, 2016).

The process is complex and can take many years for some. This can be debilitating as it prevents some families from accessing resources needed to learn and participate in school and to socialise. Often, if a child does not have the resources they need before the beginning school at the age of five, their learning is impacted and they fall behind their peers (Personal communication, February 21, 2020).

SWOT and Needs Analysis

Following the primary and secondary data collection and literature review, a strengths, weakness, opportunities and threats (SWOT), and needs analysis of children with Autism was completed to help the learners to identify what health promotion messages would be useful for families with children with ASD and for professionals

It is important to note however, that as with Autism and any disability, the way it impacts on individuals varies greatly. Due to Autism being a spectrum disorder, the strengths, weaknesses, opportunities and threats listed above do not fit or are relevant to every child with Autism or a disability. Instead, what is listed above is what *may be relevant* for children with disabilities.

The learners then discussed what needs we believe would be important to address for the ASD community, with the focus being on children and their families. Two of the needs that were identified were social isolation and the lack of resources available for families.

Social Isolation

Social isolation was a predominant theme expressed by parents with Autistic children. The challenges for children and families face in the community are about people not understanding how their child communicates and how they should be approached. The Education Act states disabled children have a right to education in all schools, however many families find there is a definite discouragement or hesitation to take on children with special needs into many schools. Parents say this is due to a lack of understanding about ASD.

The learners aimed to create a resource to help inform teachers and parents, about the condition to reduce social isolation. They wanted to create something to help 'normalise' Autistic children in all aspects of society so that they and their families feel welcome and comfortable in society rather than isolated. They considered that by educating adults about ASD, that they in turn will educate their children. The learners wanted to create more inclusiveness in schools and peers of children with ASD.

Lack of Information and Resources

Lack of resources was the second problem the learners identified and believed they could make a difference in. The learners highlighted this as a need after realising how little health professionals and the public know about the resources available for Autistic children and their families. While in the community collecting primary data for this project, they interviewed a variety of people, some were health professionals, parents, or people working within disability services and support groups. One major concern they noticed was that many of these people did not know what services were available for children with ASD. They felt that the lack of information was a barrier to people accessing services. They wanted to create a resource for health professionals, to inform them and give to their clients who have a child recently diagnosed with ASD.

PART 3: RESOURCES

Following discussions with external primary resources and completing a literature review, the learners decided that the two gaps in Autistic community were social isolation and discrimination towards Autistic children, and the lack of information and resources available to this community. They created two resources for each need. Social isolation and discrimination towards autistic children are seen throughout the school system and the primary resources suggested that when teachers and adults model negative attitude towards autistic children, peers reciprocate the same attitude. There is also a lack of resources and support groups within this community, so the learners created resources to enable finding information easier and more accessible.

Resource One

The following resource aims to help promote a local playgroup targeting children with Autism (Figure 3).
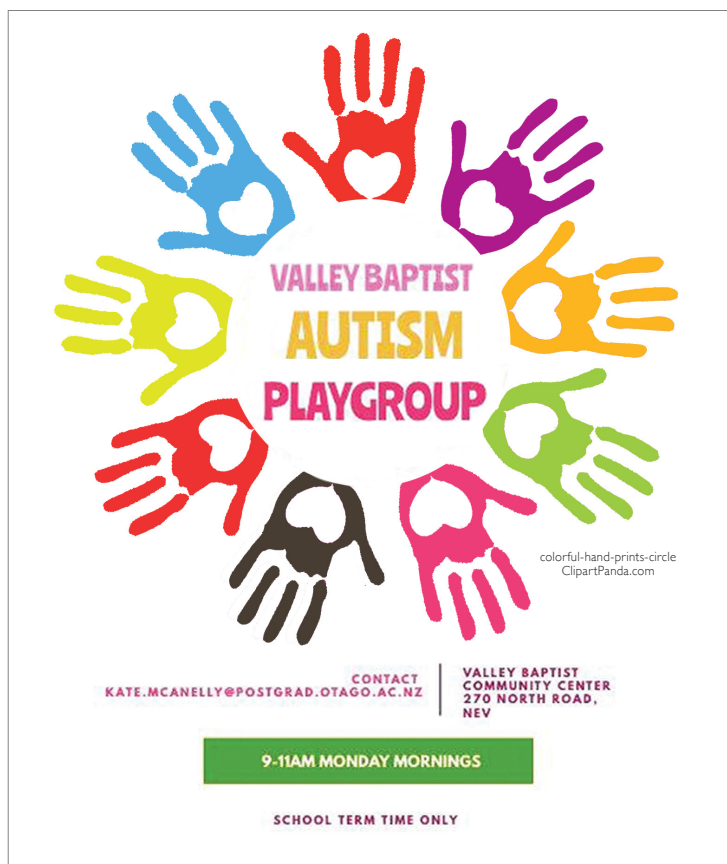

Figure 3. Pamphlet to promote local playgroup.
Source: Authors.

The learners recognised the need for a resource listing all the services in Dunedin available for children with Autism and developed a poster. They incorporated artwork from children diagnosed with Autism, by using two different outlines of children's heads for them to draw inside to reiterate that all children with Autism are different. The artwork in Figure 4 has been included on the back of the poster, while the artwork in Figure 5 is on the front side of a pamphlet the students also developed. Both children were very excited to have their artwork on the resources.

Figure 4.
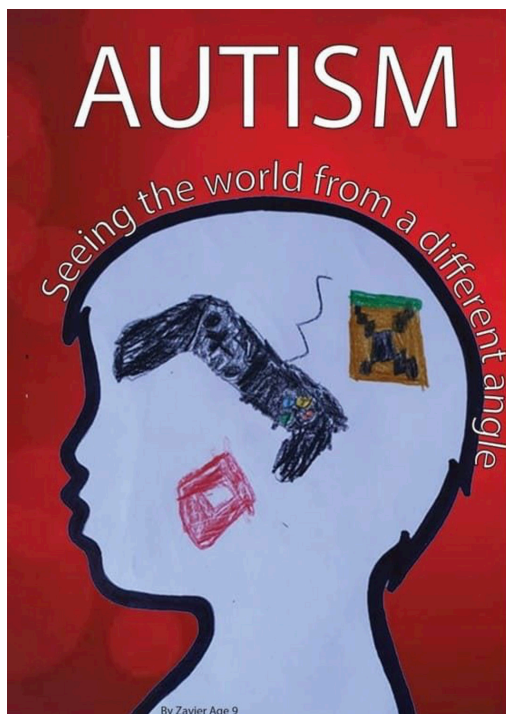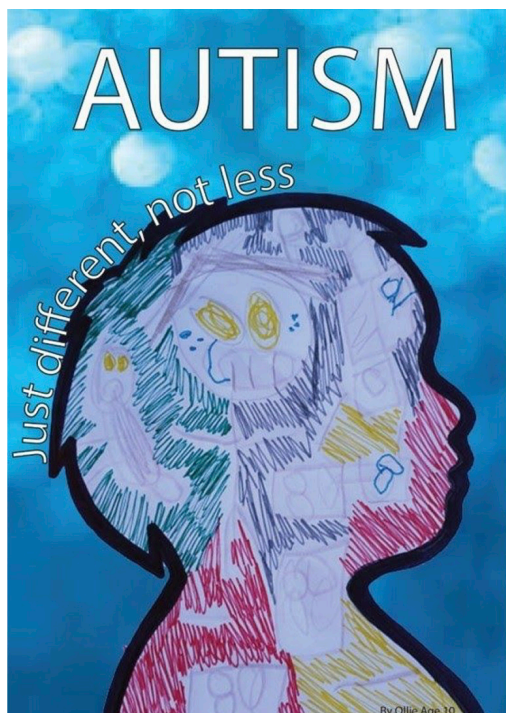Back of poster listing resources on ASD in the Dunedin area. Source: Rachel Coombe.

Figure 5.
Front side of pamphlet. Source: Rachel Coombe.

Resource Three

The third resource is a selection of six sticker designs promoting World Autism day awareness. Sadly, due to COVID-19 this was not able to be distributed to the Autistic Society for use on World Autism Day in 2020, but it is hoped that they will be used in the future.

CONCLUSION

Disabilities in different forms is a significant issue for New Zealand health, education, and social services, with 24 percent of all New Zealanders identifying as having a disability (Statistics New Zealand, 2013). Disabilities in children are different compared with those if adults, with 4 percent of children identified as having a psychological and learning disability (Statistics New Zealand, 2013). One of these disabilities is ASD, which is a lifelong is a neurodevelopmental condition that affects how people perceive the world, how they think and behave, as well as how they communicate and interact with others (Ministries of Health and Education, 2016).

The learners worked with the ASD Society, parents with children diagnosed with ASD, and health and education agencies, who identified significant difficulties and barriers that children with ASD and their families struggle with. These barriers are social isolation, lack of knowledge of available resources, and the lengthy diagnostic process are. The learners created a set of two resources that aim to try to reduce the barriers of social isolation and lack of knowledge of available resources. The third resource was stickers aiming to distribute on World Autism Day, however due to Covid-19 the learners were unable to distribute these.

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SUSTAINABLE RURAL FUTURES: A HEALTH PERSPECTIVE ON BISHOP'S CASTLE

Poppy Restieaux, Amanda Norgate, Caitlyn Lyttle, Courtney Anderson, Jasmine Monaghan, Josh Baxter, Lucy Gonsalves, Natascha Gray, Sarah Thompson, Sophie Hooker, Tayla Stanton, Tyla Gartner and Jean Ross

INTRODUCTION

A group of 12 third-year Bachelor of Nursing learners at Otago Polytechnic undertook a community development project for their Primary Health Practice in 2020. The learners applied the Community Health Assessment Sustainable Education (CHASE) model (Ross, Crawley & Mahoney, 2017) to complete a community profile of a rural English village in Shropshire, United Kingdom. This model allows nursing students to view primary health nursing from a sustainable and population-based approach. Health needs in communities were identified by a process of profiling the community, applying a needs assessment to identify health needs that the learners identify, develop a sustainable approach to resources to reduce the need within the community.

Health and support in the community differs depending where the community is situated in the world. Public health practice is diverse, stimulating and challenging because of these vast differences. Community healthcare can be found wherever people are but is not based in the hospital or institutionalised setting. The variety of settings is large and diverse, and can be rural or urban, within communities, the home, schools, general practices, private organisations, health departments (St John & Keleher, 2007).

The purpose of this project was to conduct a comprehensive assessment of the community of Bishop's Castle in Shropshire, England supervised by Associate Professor Jean Ross who guided the learners through this process. Collaboration between the learners and the community stakeholders progressed very well. Three considerations on the progress of this project need to be acknowledged, Brexit the international time zone differences between New Zealand and the UK, while this project took place in February 2020 pre COVID-19 for both countries. The goal was to work collaboratively with the community stakeholders and identified populations and identify three specific health needs for this research.

Community Profile

Bishop's Castle is situated in the Southwest of the Shropshire County, West Midlands, England, United Kingdom (Shropshire Council, 2018). It is only 1.5 metres away from the Welsh border (Shropshire Council, 2018). Bishop's Castle is surrounded by Clun in the South, Oswestry in the North, Wales border in the West, Church Stretton in the East, Ludlow in the Southeast, and Shrewsbury in the Northeast. This small town contains 203 hectares with 7.4 people per hectare (Shropshire Council, 2018).

Demographics

The population of Bishop's Castle, according to the 2011 census is 1,893, with the primary ethnicity being 98.5 percent "white"; more specifically 95.3 percent of the population identify as English/Welsh/Scottish/Northern Irish/British (Office for National Statistics, 2011a). The mean age for Bishop's Castle is 45.6 years which is comparatively higher than England's mean age of 39.3 years. Over a quarter (25.6 percent) of the Bishop Castle population is 65+ which is higher than the other population groups, notably England which has only 16.4 percent of its population over 65 years. The unemployment rate of economically active individuals in Bishop's Castle is 2.0 percent which is over half the number of England's which is 4.4 percent (Office for National Statistics, 2011a, 2011b).

Bishop's Castle is predominantly rural, with an aging population. Despite the 2.0 percent unemployment Whiddon (personal communication, 13 February 2020), says that job availability, particularly for younger people is lacking and is something to be improved upon in order to keep younger people and families in Bishop's Castle.

Community Partnership

Bishop's Castle has a very strong community of which they are very proud of. They describe themselves as being resilient and sustainable while 94 percent of participants said that they were proud of their town of Bishop's Castle (Whiddon, 2019). This demonstrates the importance of community to this rural town of England. Rural and urban communities are viewed as highly diverse in comparison to each other in terms of their social, demographic, economic and environmental characteristics. Rural communities typically live further away from access to health care resources and face many barriers compared to that of an urban context. Rural communities as highlighted by Ross (2008) face fragmented health services due to lack of health care providers. Rural people also deal with poor accessibility to services due to long-distance traveling, affordability, poor roads and lack of transportation. These issues affect rural dwellers in many ways, including illness and injury, mental health, socio-economic status, shortages of healthcare professionals, isolation, poverty, employment and education (Ross, 2017).

Bishop's Castle Community Partnership is a community driven charity aimed to advance citizenship and community development (Bishop's Castle Town Council, 2019). It does this through:

- providing strategies to develop town economy, social and environmental priorities,
- regularly consulting the community on its needs and prioritise actions,
- seeking funding support,
- representing the interests of the local community at county and national level, and
- supporting the community to achieve better quality of life for residents.

ETHICS APPROVAL

Category B ethical approval was granted through the School of Nursing Ethics Committee, Otago Polytechnic, Dunedin, New Zealand for the research to proceed.

Health Needs of the Community

By gathering primary and secondary data about Bishop's Castle, developing a SWOT analysis, the students identified the vulnerable population aggregates and the health needs that affect the community. They identified three health needs that affect the community of Bishop's Castle which include:

Transport was identified as a health need due to the lack of public transport to get outside of the town. Community members rely on their own vehicles or the minimal public transport that is provided, which has an impact on work, social mobility access to healthcare and other services, and education.

Mental Health was identified as a health need. The community members stated they were concerned that mental health and suicide is a hidden problem, and that suicide has a huge impact on the Bishop's Castle community because of their closeness.

Physical Health was also identified as a health need. This was due to the concern expressed by community members about obesity, poor diet, food poverty, lack of exercise and drug misuse taking a toll on all aspects of physical health.

Each of these health needs will be discussed separately in relation to the population groups and the community resources available.

HEALTH NEED 1 – TRANSPORT

Transport is a fundamental aspect of a community, providing access to many integral services while also offering a great deal of freedom to move around a given area. In the rural setting of Bishop's Castle, the scarcity of some resources results in a heavy reliance on transport to cover large distances for access to the full spectrum of social services only offered in larger townships. As a result, the effectiveness of transportation in Bishop's Castle influences almost every facet of the society. The learners identified the most problematic and restrictive elements of transport in Bishop's Castle, disabled accessibility parking and public transport.

A general theme emerged of strong reliance on public transport for work, school and to facilities that are not offered within Bishop's Castle. As reported by Whiddon (2020) community members found bus services are relatively limited, with the bus timetable showing transit to nearby towns of Ludlow and Newton provided only once every week. The nearby town of Shrewsbury is the largest town in a circumference of 25 miles (40km) and this provides many fundamental resources, such as secondary school education to students from Bishop's Castle (Bishop's Castle, UK., 2020). Running five times per day this bus service operates as an integral link for commuters between Shrewsbury and Bishop's Castle (Bishop's Castle- Shrewsbury, 2020). In 2019 a proposal was promoted for planned budget cuts by the Shropshire Council, to reduce this service to only two trips per day. Under strong opposition and protests from the Bishop's Castle community this plan was cancelled, however, the threat of future cuts to an already inadequate public transport service still looms over Bishop's Castle community (Todman, Protesters block Bishop's Castle road in bus row, 2019). Based upon these findings the learners concluded that public transport in Bishop's Castle was a problematic area for the community worthy of directed focus.

Disabled accessibility parking was identified from its presence in the media, as a problematic area early in the learners' research. In January 2020, an article in Shropshire Star (the local community newspaper), reported on the inadequacy of parking spaces for the disabled, and the lack of road markings in these areas meant that non-permitted cars inappropriately use these spaces. Furthermore, the article reported that a Freedom of Information Act request revealed that none of these parking spaces is subjected to any type of traffic order, meaning infringing parkers face no repercussions (Trigg, Action call over disabled parking spaces in Bishop's Castle, 2020). Upon consultation with community representatives for Bishop's Castle, the significance of this issue was further highlighted. Publications report a pattern of inaction by the Council, even after repeated complaints. Unavailability of disabled parking is an issue only further compounded by the tight and congested streets when combined with the lack of general parking, making accessibility for people with disabilities even more difficult (Figure 1).

Figure 1: Bishop's Castle. Source: Keith Whiddon.

As a 12th-century town, Bishop's Castle has a layout that pays little regard to modern-day vehicles and parking, hence a prevailing issue with parking exists in Bishop's Castle, especially around the town centre where streets are congested, and the roads are narrow and tightly packed (A Brief History of Bishop's Castle). This issue was outlined during the consultation with representatives of Bishop's Castle and reaffirmed in survey results collected as part of the Bishop's Castle community plan. The parking survey revealed that within three of the four main streets, the number of vehicles parked exceeded available parking spaces, and this trend was observable on multiple days of the week. More concerningly, cars exceeded available spaces by parking on yellow lines and pavements (Bishop's Castle Community-Led Plan, 2016). Interestingly, parking a car on yellow lines is not an offence enforceable by the law and therefore road markings are likely being disregarded (Bishop's Castle Community-Led Plan, 2016). There is often parking capacity around other areas of town away from the main street, however, the towns demographic is skewed toward the aging population, making available parking on the main streets a more pronounced issue due to limitations in the mobility of the elderly.

Impacts transportation has on different community groups

Public transport and parking accessibility are a community-wide concern, although, there is an increased significance for three specific community groups, these being the elderly, disabled and mothers with prams. These groups require aid and usually extra funding to support their access to the transport resources, this can be done by providing ramps on buses or the dial-a-ride service.

The elderly makes up a large proportion of the Bishop's Castle population and are predominantly disadvantaged as rural communities have limited public transport and rely on individual owned vehicles (Velaga, Beecroft, Nelson, Corsar & Edwards, 2012). This becomes a disadvantage for the elderly community as they may not be fit to drive or no longer own a vehicle. This is a similar scenario with disabled individuals who can also be able to drive, resulting in loss of independence and restricted accessibility to places. Bishop's Castle offers public bus transport although it is limited.

As previously stated, Bishop's Castle has very narrow roads causing cars to park over the footpath, resulting in narrow and obstructed pathways (Whiddon, February 2020). This makes it difficult for the elderly to commute through the footpaths, creating possible falls risks and preventing them from accessing facilities. The same disadvantages apply to disabled individuals and those with a pram/pushchair. As well as Bishop's Castle offering limited pedestrian access and unsafe terrain, the topography of the area is steep in some areas (Whiddon, February 2020) which is also a disadvantage for the three identified community groups. The limited availability of disabled parks significantly affects disabled individuals as they rely on these parks. It further limits their accessibility encouraging transport poverty for this affected community group.

Health Implications

Transportation systems connect people to one another and to the places that they work, live and learn. Residents in rural areas face greater barriers to transportation and access to healthcare compared with urban counterparts and have more problems with accessibility and travelling further distances to health care providers. The issues of transportation in Bishop's Castle have a direct impact on the health of the community and health-related implications. Lack of access to essential transportation can lead to diminished social networks and isolation. In comparison, adequate and affordable networks of transport is beneficial to the population. As highlighted by Boniface, Mindell, Scantlebury and Watkins (2015), if transport services are poor, individuals can be considered at a disadvantage and can lead to health-related complications, social isolation, reduced access to services, social networks and opportunities in the community. The use of transportation is also essential for access to further education, social mobility, job security and for after-hours medical care outside of Bishop's Castle.

Recommendations

From the data collected and analysed by the learners, two recommendations that could potentially improve health needs were made.

These recommendations are:
- improving awareness and signage of disabled parking, and
- encouraging the use of public transport.

Health promotion message to the community

The students developed a formal submission to the Shropshire Council explaining their findings, and provided a flyer to be placed on the windscreen of all non-permitted cars occupying disabled parks, demonstrating the importance of the correct use of disabled parks and aims to promote accurate use in the future (Figure 2)

Figure 2: Disabled Car Park in Bishop's Castle. Source: Keith Whiddon.

HEALTH NEED 2 – MENTAL HEALTH

Issues related to mental health and support are one of the main challenges faced by rural communities (McMurray & Clendon, 2015). Mental health and wellness are an integral part of health; there is no health without mental health. It needs to be viewed with the same importance as physical, familial and spiritual health (World Health Organisation, 2018). However, in rural settings like Bishop's Castle, it can be challenging at times to provide holistic healthcare that meets all these aspects of health. This is in part, a result of barriers faced by rural communities such as inaccessibility to services (as discussed within the transport health need), or lack of funding (McMurray & Clendon, 2015).

This part of the report will discuss the mental health needs of effects older people, youth, and pregnant women.

Older people

With an aging population and a vast landmass area, Bishop's Castle residents are more likely to feel isolated and lonely (Shropshire Council, 2018). Reports show that situational issues such as changes in marital, financial and physical health, can also lead to ongoing physiological decline and can result in chronic health conditions (Victor & Bowling, 2012). While loneliness is subjective, social and physical isolation is objective. Loneliness is an individual's perception of how they are feeling and is more common in the older adult due to their increased situational issues associated with aging (Rural Services Network, 2015). Social isolation can be defined as a lack of social interactions with family, friends, neighbours, and the broader community, and is measured by the strength of the individuals' existing social network and support services currently in place (Luskin Biordi & Nicolson, 2013). Physical isolation is the physical distance and barriers between an individual and their support networks which can be, for example, a lack of transport and communication services. Physical isolation can cause social and emotional isolation, leading to feelings of loneliness.

Loneliness and isolation impact significantly to depression and mental illness in the older person. Andrews, Gavin, Begley, and Brodie's (2003) study on utilising befriending services (from the viewpoint of the consumer), showed the benefit of volunteers or home visitors forming relationships with the older person to combat loneliness and isolation. This improved outcomes for the older person's mental health and wellbeing. As a person ages, they become more reliant on people and services being brought to or being within proximity to their home. This increases their risk of social isolation from previously enjoyed activities, thus increasing the risk of decline in mental health and wellbeing.

The risk of social isolation in the older adult population in a rural community is quite high. This portion of the population would benefit someone from a health-related background, ideally specialised in mental health, that could see the possible decline in an individual's physical health and psychological health, and with the ability to support the individual and their families through referral processes.

Youth

There is a growing amount of literature indicating the benefits and disadvantages of living within a rural community today with a prevalent theme being the effects rural living can have on young people's mental health. Youth in rural areas can display feelings of boredom and loneliness, with many of the older teenagers stating it has affected their mental wellbeing contributing to depression or anxiety (Education Authority, 2019). Depression in youth is a particular concern, as those with depression will often experience difficulties in other aspects in their lives (Black, Roberts, & Li-Leng, 2012). The concern for adolescents is also because of the link between depressions to suicidal ideation, attempted suicide, suicide completion and deliberate self-harm (Black, et al., 2012). Black et al., (2012), also identify a disadvantage of living in rural areas is the lack of accessible mental health services. The need for resources for youth with mental ill-health has encouraged the use of technology to help support or to replace the existing face-face services (Orlowski, Lawn, Antezana, Venning, Winsall, Bidargaddi & Matthews, 2016).

The rural community of Bishop's Castle has access to many of the UK mental health and wellbeing online resources. 'Kooth' is one such resource which is offered to young people aged 11 years and over, offering free and confidential support and counselling (Kooth, 2020). This online resource has a range of different professionals that are available to talk to young people online from midday until 10pm weekdays and 6pm to 10pm on weekends (Kooth, 2020). Face-to-face mental health services are free through the National Health Service (NHS) to people in the UK (NHS, 2020), but requires a referral from a General Practitioner (GP). However, for some of the mental health services, a person can self-refer for example to Independent Psychological Therapy service (IAPT) (NHS, 2020). For a rural town like Bishop's Castle, the closest place to offer these therapies is 18 miles away, making face-to-face help harder to access (Freud, 2020).

For many of the youth, it is always a good first step to talk to the local GP or a trusted teacher or health professional in their community. At the College of Bishop's Castle, a school counsellor and a student support person is available to talk with (Community College Bishop's Castle, 2020). The issue found in rural areas such as Bishop's Castle is having easy access to specialist mental health services.

Young families and perinatal depression

As pregnancy is viewed as a generally positive event, assessment is often overlooked for Perinatal Depression Disorder (PDD), yet it affects between 15-20 percent of women globally (Baker & Oswalt, 2008; Price, 2010). PDD continues to be significantly under-diagnosed and under-treated, with 75 percent of cases not being diagnosed and left untreated (McMurray & Clendon, 2015). Undiagnosed PDD can mean a woman suffers months, sometimes years of illness (Strass, 2002). This is concerning given the potential effects PDD can have on the mother-infant relationship, and the familial system (Baker & Oswalt, 2008). Research into interactions between depressed mothers and their infant, supports this concern. Depressed mothers show less affectionate behaviour, respond less to infant cues, and can socially withdraw. They are also more likely to have hostile/intrusive interactions with their babies (Baker & Oswalt, 2008).

PPD can pose an even greater risk in rural communities, like Bishop's Castle. Rural communities are faced with extreme tangible and intangible barriers when it comes to accessing mental health support. Rurality brings challenges that increase the risk of perinatal depression including social isolation, lack of confidence, lack of support and education. These rural challenges paired with risk factors to PPD cause potential concerns for the health and wellbeing of mothers.

Specific to Bishop's Castle, there is very little mental health support for postpartum depression and other mental health issues faced by families. It is up to mothers to ask for help, and there are no pregnancy care planners in the area. Midwifery is still providing support antenatally, but this is based 38 miles away. There seems to be a gap between the GP practice and midwifery services if a woman presents with PDD. Midwifery is provided through a central Trust, which means they run differently. Postnatally, there are no checks from community or infant/well-child nurse and the baby's developmental stages are seemingly not tracked, therefore, families would have to present to the practice themselves with parental and infant/child health issues (Dr Adrian Penney, personal communication, 14 February, 2020).

Health promotion message to the community

Drawing on the evidence from the literature and community, the recommendation of providing a specialist mental health nurse in the local GP practice could offer much-needed support for mental health issues and continuing mental wellness in the Bishop's Castle community. It is envisioned that the mental health professional could take an education seminar for other health professionals to promote the role and how to help people to care for their mental health.

To promote mental health in the community the learners created two resources promoting mental health and wellness: a stress ball (Figure 3) and a poster (Figure 4) with the phrase 'no health without mental health' on it. This phrase was developed from the World Health Organisation (2018). Reminding people about mental health can actively aid in mental wellbeing. This could lead to either seeking help if issues are present or remind healthcare workers to consider mental health.

Figure 3. Stress ball. Source: Authors.

Figure 4. Poster. Source: Authors.

HEALTH NEED 3 – PHYSICAL HEALTH

Engaging in physical exercise and eating a healthy diet are key contributors to maintaining good health and wellbeing. Bishop's Castle has a high percentage of overweight or obese residents. Changes in health behaviours are required to lower these statistics to see positive community outcomes.

Locally grown and affordable weekly vegetable box subscriptions are a healthy option available to the residents of Bishop's Castle. Sourcing local produce is a good way to support the community and to keep money in the local community. The household income in Bishop's Castle is lower than the surrounding towns in the County (Shropshire Council, 2018). According to the Shropshire Food Poverty Alliance (2019), food poverty is an issue faced by many living within the County, due to financial issues, access to food and skills/knowledge. The average hourly income in Shropshire is £14 less than the national average UK income. Access to food is often limited in rural areas, with prevalent transport restrictions and limited resources (Shropshire Food Poverty Alliance, 2019). To achieve positive community health and wellbeing, it may be beneficial to promote education on dietary effects on health and teach affordable ways to eat healthier foods.

Based on the key findings from the literature, the learners evaluated how health promotion on healthy lifestyles through increasing exercise could apply to the community of Bishop's Castle and impact on physical health of people of all ages. The learners recognised the need for interventions to help to improve overall physical health. These interventions are applicable to the entire population.

Health promotion message to the community

To increase the likelihood of community members accessing the outdoors to improve on their physical activity the learners recommended that the members of the community should engage with activities that occur within the town boundaries or create an activity where everyone can participate and become more active in their

day-to-day lives. Bishop's Castle has a leisure centre that includes a 20-metre swimming pool, 20 station fitness suite, badminton courts, sports hall, squash halls, sauna and sunbed and other attractions. However, there is a cost to access these areas/activities in the leisure centre which may be an issue for some community members. Community members identified that the average age of people accessing the leisure centre was around 60 years. There are also walking tracks close to Bishop's Castle, however these are approximately 20-minute drive away.

The learners suggested a community garden be built for all members of the community to participate. This could be located close for community members to walk to, and for no cost except for the cost of their energy through helping with the garden, in return for receiving fresh vegetables and fruit. The aim of encouraging this idea is for community members to become motivated to access the outdoors and to increase their activity levels by walking and moving around in a garden.

A community garden promotes healthy eating, community participation and allows residents to learn good food behaviours that could be utilised in their own homes. A community garden is a sustainable source for fruits and vegetables (Figure 5) in a rural area and offers a wide range of benefits for individual's physical and mental health by having more social contact with others who share similar interests, increasing physical activity levels, improving nutrition, affordable fresh fruits and vegetables and decreasing obesity statistics (Lovell, Husk, Bethel & Garside, 2014).

Community gardens offer people and the community many benefits. Recreational and food production are both opportunities that underutilized spaces provide (Community Garden Council, n.d.). Food that is grown locally reduces the production of greenhouse gases caused by long distance transportation of food. Having these community gardens has potential to reduce crimes rates in the neighbourhood by bringing people together

Figure 5. Poster Garden. Source: Authors.

which increases the visibility and engaging citizens in positive initiatives (Community Garden Council, n.d.). Community gardens can contribute towards an individual's healthy lifestyle by providing affordable, fresh, safe fruits and vegetables, help in relieving stress and increase sense of wellness, improving overall physical health by getting people active and giving people and opportunity to learn and share knowledge on nature, gardening and cooking (Community Garden Council, n.d.). It can also benefit the community as the gardens help build welcoming, safer communities, reduce pollution and transporting food over long distances, reducing food insecurities, connecting people to nature and providing the opportunity for people in rural areas to educate and engagement with the food system and where the food comes from (Community Garden Council, n.d.).

Community Garden Council. (n.d.) show that the main reasons for community gardens are to address physical and mental stress, community building, building skills and satisfying curiosity, enhancing meals and diet, involving
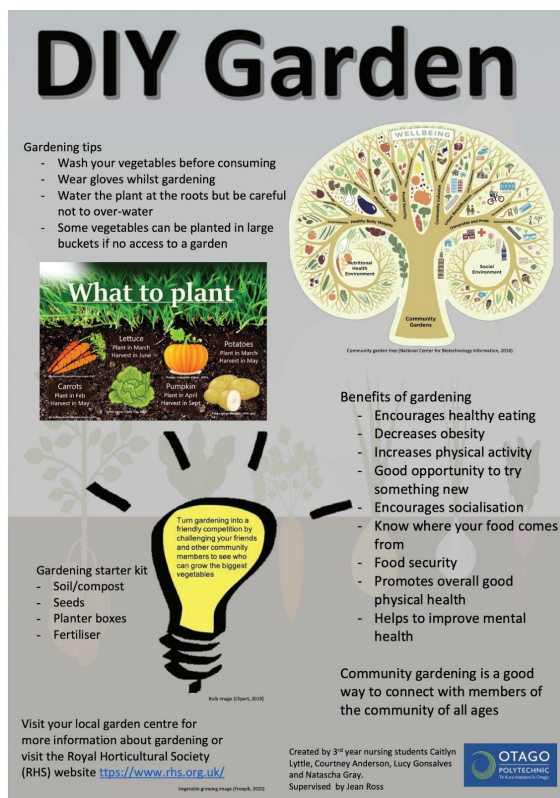
children, saving money on food, preserving culture and tradition and addressing environmental concerns related to food. There are three main themes that can be picked up from this and these are health, inclusion and learning. Gardening helps people's health by decreasing stress, helps healing previous trauma or anxiety, increases physical activity while providing healthy food options (Community Garden Council, n.d.). This clearly shows that the benefit of community gardens is helping to promote physical activity, healthy eating and good mental health.

In the development of this idea, the learners worked in partnership with members of Bishop's Castle to create something based on what they believe is needed for the community. The resources created has a number of different components including: a poster (Figure 5), Coaster (Figure 6), Fridge Magnet (Figure 7) and pamphlets that will be able to reach the whole community delivering consistent education on the benefits of a community garden and healthy living.

Figure 6. Coaster. Source: Authors.

Figure 7. Fridge Magnet. Source: Authors.

CONCLUSION

The learners expressed this project as being an incredible experience. The community of Bishop's Castle was warm and inviting, extremely helpful and welcoming to them. They learnt so much about a different culture, while having the privilege to influence change through health promotion, from the other side of the world. As practising at a distance (virtual platform) is new ground in terms of research for Otago Polytechnic Bachelor of Nursing, it has been important learning and insight into community health promotion.

Through the learners' comprehensive community assessment, literature reviews, health promotion development with the Ottawa Charter and health resource development, they addressed prevalent health issues in Bishop's Castle. Transport, mental health and physical health are large issues that cannot be changed overnight. But with hope, they envisage that change can occur; health can be maintained and supported, and Bishop's Castle can continue to flourish as the wonderful community it is.

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