Nursing Praxis

IN AOTEAROA NEW ZEALAND

Journal of Professional Nursing

Special Issue: The nursing response to COVID-19 in Aotearoa New Zealand

A compendium of editorials; reflective pieces and commentaries; original research; and international contributions

Acknowledgements from:

Honourable Chris Hipkins, Minister for COVID-19 Response

Dr Ashley Bloomfield, Director-General of Health, & Lorraine Hetaraka, Chief Nursing Officer

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Praxis: "The action and reflection of people upon their world in order to transform it."

(FREIRE, 1972)

COVER: Crimson was deliberately chosen by the Editorial Group as the colour for this journal as it represents, for us, imagination, intuition, potentiality, struggle and transformation.

KORU: Designed for this journal by artist, Sam Rolleston: The central Koru indicates growth, activity and action. The mirrored lateral Koru branches indicate reflection. Transformation is shown by the change of the initial plain Koru design to a more elaborate one.

Nursing Praxis
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Acknowledgement

The nursing profession, alongside the wider health and border workforces have truly shown us what dedication looks like over the past two years. From staffing our hospitals, providing testing and care in managed isolation facilities, to being an integral part of our country's largest ever vaccination campaign to ensure New Zealanders have the best chance of protection from the harm caused by COVID-19. Nurses have shown extraordinary courage and commitment every single day, going to work during a pandemic to ensure the rest of us can stay safe and well.

Thank you for everything so far, and for the work you continue to do.

He Whakamoemiti

He tika te kī ko te tūturutanga o te piripono ki ngā mahi tika ka kitea e te ao i roto i ngā mahi a te umanga tapuhi, waihoki te kāhui kaimahi hauora, tomokanga whenua hoki i roto i ēnei tau e rua ka hipa ake nei. Mai i te noho hei iwituararo mō ō tātou hōhipera, i te whakamātautau mō te mate me te taurima tūroro i ngā wāhi taratahi, tae atu ki te noho hei wāhi mō te whāngainga kano ārai nui rawa i Aotearoa mai o mua ki nāianei, kia piki te wawaonga mō te hunga katoa o Aotearoa mai i COVID-19, kua kitea te pono. Nā ngā tapuhi i whakaahua tēnei mea te tū māia me te ngākau-pono ia rā, ia rā, i a koutou e haere ana ki te mahi i ngā rā o tētahi mate urutā nui, kia hauora ai mātou katoa.

Tēnei te whakamoemiti o te ngākau ki a koutou mō ā koutou mahi o ēnei tau, me ngā mahi e kawea tonutia nei e koutou

Hon Chris Hipkins
Minita mō / Minister for COVID-19 Response
Te Kāwanatanga o Aotearoa / New Zealand Government
Wellington
Aotearoa New Zealand

Acknowledgement

Tēnā tātou katoa

He kupu manaaki ki ngā tapuhi o Aotearoa

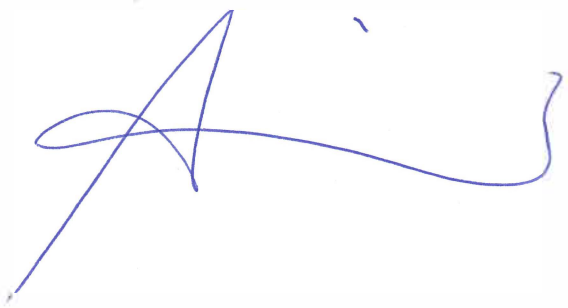
Nursing has made a huge contribution to our pandemic response in Aotearoa New Zealand. We are pleased that Nursing Praxis in Aotearoa New Zealand is publishing a dedicated issue to reflect on what the COVID-19 response has meant for nursing and nurses in Aotearoa and capture some of the learnings for nursing and our health system.

We would both like to acknowledge the tremendous work undertaken by nurses throughout Aotearoa. We know that nursing has contributed to all parts of the response including frontline preparedness, infection prevention and control, tracing, testing, managed isolation and quarantine, and vaccination. Nurses have contributed to local community engagement to promote safety and wellbeing; aged care and outreach services caring for vulnerable people and particularly our Māori and Pacific communities; and provided leadership and assistance to policy at national, and local levels; and adopted changes to the delivery of nursing education. Many nursing students have stepped up to become vaccinators and swabbers. Others have returned to practice to assist.

We thank you for the many hours you have contributed to this collective effort to keep our communities safe. It is greatly appreciated. We would like to acknowledge and thank the nursing profession for its resilient and steadfast response in putting patients and their care first. Nurses have met the many challenges posed by COVID-19 with professionalism.

Ngā mihi nui ki a koutou katoa. Thank you everyone.

Tēnā koutou, tēnā koutou, tēnā tātou katoa.



Dr Ashley Bloomfield

Te Tumu Whakarae mō te Hauora
Director-General of Health

Ministry of Health
Manatū Hauora

He Whakamoemiti

Tēnā tātou katoa

He kupu whakamihi ki ngā tapuhi o Aotearoa

He tino nui te āwhina a te ao tapuhi ki ngā urupare ki te urutā i Aotearoa – New Zealand. E hari ana mātou kua whakaputaina e Nursing Praxis in Aotearoa New Zealand tētahi putanga motuhake hei whakaata i ngā pānga o te urupare ki COVID-19 ki te ao tapuhi me ngā tapuhi tonu o Aotearoa, hei hopu mārire hoki i ngā akoranga mō te ao tapuhi me tō tātou pūnaha hauora.

E hiahia ana mātou ki te whakamoemiti mō ngā mahi ātaahua i kawea e ngā tapuhi i roto i Aotearoa. E mōhio ana mātou he uaua te tatau i ngā wāhanga katoa i whai wāhi nui ai te hunga tapuhi ki ēnei mahi, ko te takatū i te aroākapa tērā, ko te ārai me te whakangāwari pokenga tērā, ko te whaiwhai hoapā tērā, te whakamātautau tērā, te noho motuhake e whakahaeretia ana me te taratahi tērā, me te whāngai kano ārai mate. Ka nui te āwhina a ō tātou tapuhi ki ngā mahi torotoro hapori hei whakatairanga i te hauora me te toiora; ko te tiaki kaumātua me ngā toronga taurima hapori whakaraerae tērā, otirā ko ō tātou hapori Māori, Moana-nui-a-Kiwa te hapori e aronuitia ana; kua aratakina, kua āwhinatia hoki e ngā tapuhi ngā kaupapa here i ngā taumata ā-motu, ā-takiwā hoki; kua whakaurua hoki he panonitanga ki te mahi whakaako tapuhi. He maha hoki ngā tapuhi kua peke whakamua hei kaiwero kano ārai, hei kaitango hūware hoki. He maha hoki te hunga kua hoki mai ki te mahi ki te āwhina.

Tēnei mātou te whakamoemiti nui ki a koutou mō ngā haora maha i whakaheke werawera ai koutou kia haumaru ai ō tātou hapori. E kore e warewaretia. Me kōrero rā, me whakamoemiti hoki te umanga tapuhi mō tana urupare pakari, toka tū hoki ki ngā āwhina i ngā tūroro, me te arotahi ki te tiaki i a rātou. Kua ea i ngā tapuhi ngā tini wero nā COVID-19 i hora ki mua i te aroaro, me te ū tonu ki ngā ritenga ngaio.

Ngā mihi nui ki a koutou katoa. Kia ora rawa atu e hoa mā.

Tēnā koutou, tēnā koutou, tēnā tatou katoa.

Lorraine Hetaraka

Tapuhi Rangatira
Chief Nursing Officer

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Nursing Praxis COVID-19 Special Issue: Introduction

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This Special Issue intends to capture a *moment in time* of the COVID-19 pandemic by recording reflections, activities, and experiences of nurses from a range of contributors across Aotearoa New Zealand and internationally. Nurses as clinicians, educators, leaders, researchers, and academics were invited to submit abstracts to *Nursing Praxis* in April 2021. Full manuscripts were received between August and October 2021 and subjected to the usual peer review processes. The result is a compendium of articles which include short reflective pieces; commentaries and critiques; original research; and in-depth pieces as case studies, kōrero or talanoa (discussion). They provide a snapshot during a time in Aotearoa which will historically be known as the elimination phase of COVID-19 (from February 2020 to December 2021).

The issue begins with a timeline depicting the key events and decisions that relate to Aotearoa New Zealand and nursing through the elimination phase of COVID-19 (Hales, 2021). Alongside this timeline are references to the articles locating their topics within a particular time period of the response. Two editorials are presented. The first is a polemic drawing on the legacy of Te Puea Hērangi, which stipulates the need to listen to Māori nurses and Māori nurse leaders who promote hauora (health and wellbeing) and equity in their communities, (Hunter & Tipa, 2021). The second reflects on how the nursing voice has so often been missing in key policy decisions at national, regional, and local levels throughout the pandemic, despite the hero status often afforded to nurses through the pandemic (and particularly overseas) (Popoola, 2021).

A series of shorter articles then describe how nurses were instrumental in setting up the national contact centre (Hales et al., 2021); developed infection prevention and control policies within a district health board (Berger, 2021); trained nurses to provide lifesaving non-invasive ventilation to critically unwell patients (Malik, 2021); and set up triage processes in the emergency department based upon earlier research (Lockett, 2021). Other nurses reflected on the value of having clinical currency to return to frontline practice in critical care from an education setting (Blunden & Poulsen, 2021); change the delivery of education to nursing students to optimise learnings from the pandemic (Thomson et al., 2021); and the challenges for academics in providing pastoral care to nursing students (Winnington & Cook, 2021). A newly established nursing leadership group advocated for the aged residential care sector at a national level and with district health boards, supporting local facilities to protect their residents (Hughes et al., 2021); Māori nurse leaders navigated the health system between local health providers, the public health unit, and the primary health enterprise to promote hauora for Māori whānau in rural communities (Davis et al., 2021); and Pacific nurse leaders described the challenges and commitment to Pacific communities and the need for greater acknowledgement and investment in the Pacific nursing workforce (Smith et al., 2021). Three pieces of qualitative research are presented exploring registered nurses' sensemaking and resilience to maintain their wellbeing through the pandemic (Cook et al., 2021); nurses' challenges including stigmatisation, while working in managed isolation and quarantine facilities (Jamieson et al., 2021); and how nurses to adapted to new technologies and the importance of providing good access to information, software, internet, and support (Collins & Honey, 2021). Case studies from Aotearoa, Australia, Canada and the United States provide an overview of the COVID-19 response to Indigenous Peoples by governments, nurses, and Indigenous Peoples themselves, noting how pandemics result in increased inequities and the necessity for Indigenous leadership, self-determination, and sovereignty (Clark et al., 2021). Finally, academics from the International Network of Child and Family Centered Care (INCFCC), share children's self-reported experiences through lockdown, using mediums

including art, poetry, and storytelling (Foster et al., 2021).

We know that every nurse has a story to tell, as does every person in Aotearoa. All of us have had to make adjustments to our daily lives and routines, with many people being severely disaffected with changes to jobs, income, schooling, friendships, whānau, community, careers, isolation, and health and wellbeing. On top of the many personal challenges experienced, nurses have demonstrated their ability to respond creatively and iteratively to deliver services that protect and care for the public, while putting their own personal safety, and that of their whānau, at risk.

As health workers, we know that the ramifications of the pandemic will be far-reaching with a long tail of recovery for many. We are witnessing high levels of stress, anxiety, and even anger within communities, and acknowledge that frontline workers, who have gone above and beyond what would usually be expected of them, have experienced abuse, stigmatisation, and racism. At the same time, we know that inequities that were present before the pandemic have been exacerbated, highlighting persisting issues of access to health, education, and social services, and institutional racism.

Living with COVID-19 is the next phase of this global pandemic beginning, as we go to press, on 15 December 2021 with the opening up of regional borders and national travel. This new normal will be with us for the foreseeable future and nurses, along with colleagues from across the health and disability sector, will continue to respond to health and wellbeing needs of their communities. Ongoing research is going to be critical to explore the lived experiences of people and the work of nurses during the pandemic, enabling us to acknowledge the past and learn for the future.

Acknowledgements and Bouquets:

Editors: Associate Professor Catherine Cook, Dr Mandie Foster, and Dr Helen Rook have worked tirelessly to complete this Special Issue of Nursing Praxis, from the call to abstracts, to finalising manuscripts ready for publication. This is possibly the most ambitious project yet for *Nursing Praxis* and certainly the biggest issue.

Reviewers: *Nursing Praxis* would like to thank the many reviewers who carefully, and in a very timely way, reviewed manuscripts for this issue. The peer review process is crucial for academic integrity.

Contributors: Finally, *Nursing Praxis* would like to thank the contributors for developing fabulous manuscripts, responding to feedback, and working with us to deliver a completed issue. We hope this Special Issue honours your contribution to the safety, protection, and hauora of individuals, whānau, and communities in Aotearoa New Zealand.

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Contents

Section 3: Original articles

Nursing Praxis in Aotearoa New Zealand
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Timeline

Timeline: Nursing's response to key COVID-19 events in Aotearoa New Zealand

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Timeline table

The purpose of the table is to provide a timeline summary of key COVID-19 events in Aotearoa New Zealand and the response of the nursing profession to keep the community safe, care for those with COVID-19, support the nursing workforce, and adapt and support nursing students to complete their qualifications. The timeline specifically records Aotearoa New Zealand's COVID-19 response between February 2020 and December 2021 when the "elimination" strategy implemented by the New Zealand Government (New Zealand Government, 2020) guided Ministry of Health directives and nursing practices. The key events have been mapped out using the New Zealand Government (2021) and Ministry of Health (2021a) official sources, namely their two COVID-19 websites. This Special Issue of *Nursing Praxis in Aotearoa New Zealand* provides evidence of nursing's response to the pandemic. Articles are cited in the table in reference to events on the timeline.

Date	Key Events	Summary of nursing response
31 December 2019	Cluster of cases in Wuhan, China	**Global pandemic declared** Nurses lead the establishment of the National Close Contact Service (Hales et al., 2021). Infection control nurse leaders develop an integrated infection control and prevention strategy (Berger, 2021). Nurses prepare services for infected patients: Emergency Departments redesign triage practices (Lockett, 2021); ward staff trained in non-invasive ventilation (Malik, 2021). Aged Residential Care's newly formed Nursing Leadership Group prepare to protect their vulnerable older adult population (Hughes et al., 2021).
13 January 2020	First case of COVID-19 outside China	
3 February 2020	Ban on the entry of overseas travellers from or transiting through China	
28 February 2020	First reported case in Aotearoa New Zealand	
5 March 2020	The first community transmission	
11 March 2020	World Health Organization declared global pandemic	
19 March 2020	Borders close; New Zealanders returning home to self-isolate 14 days	
17 March 2020	Government announces $500 million for health services to combat the Disease	
21 March 2020	Government release 4 level Alert level framework; Country at Alert Level 2	

23 March 2020	**Country enters Level 3**	**First community outbreak** 6,228 nurses without Annual Practising Certificates contacted by Nursing Council of New Zealand to aid COVID-19 response (NCNZ, 2020a). Nurses seconded to COVID-19 response roles: MIQFs, testing centres and community support. Māori nurse leaders support Māori workforce and communities (Davis et al., 2021). Nursing students withdrawn from clinical placements and all education moves to online learning (Thompson et al., 2021). Nurses engage in information and communication technologies to provide care (Collins & Honey, 2021) Academic nurse educators provide frontline clinical support (Blunden & Poulsen, 2021). Nurse educators provide additional pastoral care to nursing students (Winnington & Cook, 2021).
25 March 2020	Country enters Level 4 (Full national lockdown)	
29 March 2020	First death	
9 April 2020	Managed Isolation and Quarantine facilities (MIQF) operational; All returnees to isolate for 14 days in MIQF	
27 April 2020	Country returns to Level 3	
13 May 2020	Country returns to Level 2	
1 June 2020	Country returns to Level 1	
11 August 2020	Community transmission: Auckland enters Level 3; Rest of the country enters Level 2	**Second community outbreak** Nurses working in MIQF feel the pressures of protecting Aotearoa New Zealand borders (Jamieson et al., 2021). Frontline nurses' wellbeing under the pressures of working during the pandemic examined (Cook et al., 2021). Nursing students start to return to clinical placements. Tertiary education providers plan for dual mode delivery of nursing programmes. Nursing Council of New Zealand announce two additional State Final Examination opportunities (NCNZ, 2020b). Nursing Council of New Zealand issued over 1000 interim Annual Practising Certificates to support COVID-19 nursing roles (NCNZ, 2020b)
21 September 2020	Except for Auckland, rest of the country returns to Level 1	
8 October 2020	Auckland returns to Level 1	
11 November 2020	Last reported community case	
19 November 2020	Mask mandatory on public transport in Auckland; Masks mandatory for all flights	
14 February 2021	Community transmission: Auckland enters Level 3; Rest of the country enters 2	**Third community outbreak & Vaccination programme commences** Nurses train as COVID-19 vaccinators. Nationwide vaccination programme commences with border and healthcare workers (Ministry of Health, 2021b). Vaccination centres set up around the country. Māori nurses lead the vaccination drive in rural and urban communities providing cultural and clinical reassurance (Clark et al., 2021). Tertiary nursing education providers continue to offer dual delivery mode education programmes for the 2021 academic year.
18 February 2021	Auckland returns to Level 2; Rest of the country returns to Level 1	
19 February 2021	First vaccination against COVID-19 (Pfizer-BioNTech vaccine Comirnaty) Vaccinators first recipients of the vaccine	
20 February 2021	Vaccination of border workers commence	
23 February 2021	Auckland returns to Level 1	
28 February 2021	Auckland returns to level 3; Rest of the country to Level 2	

7 March 2021	Auckland returns to Level 2; Rest of the country to Level 1	
12 March 2021	Auckland returns to Level 1	
22 March 2021	Border worker case	**MIQF border-community transmission & Quarantine Free Travel** MIQF nurses encounter further stigmatisation following border worker COVID-19 cases (Jamieson et al., 2021). Nursing Council of New Zealand publishes a guideline statement: COVID-19 vaccine and your professional responsibility (NCNZ, 2021a). Nursing Council of New Zealand announces there is no place for antivaccination messages in professional nursing practice, including via social media (NCNZ, 2021b).
8 April 2021	Border worker case	
11 April 2021	Border worker case	
19 April 2021	Trans-Tasman quarantine free travel commences	
20 April 2021	Border worker case	
24 April 2021	Quarantine free travel suspended between different Australian States and Aotearoa New Zealand over the following month	
23 June 2021	Wellington enters Level 2 for 3 days. Quarantine free traveller with COVID visits Wellington	
12 July 2021	Mandatory vaccinations for border worker	
30 July 2021	Health care worker quarantined due to minor PPE breach	
17 August 2021	Community transmission: Country moves to Level 4	**Delta variant (fourth) community outbreak** New Zealand Nurses Organisation cancels planned Strike Action for 19th August considering the new community outbreak (NZNO, 2021). Pacific communities are most affected by the Delta outbreak. Pacific nurse leaders call for the strengthening of the pacific nursing workforce (Smith et al., 2021). Mandatory COVID-19 Vaccination Order announced for nurses. Nurses must be fully vaccinated by 1 Dec 2021 (Hipkins, 2021, October 11). Auckland nursing students given permission to sit State final examinations ahead of completing required clinical hours for the transition to practice placement (NCNZ, 2021c). Nursing Council of New Zealand announce an extra state final examination date for students (NCNZ, 2021c). Nursing Council of New Zealand publish guidance statement on providing care to patients not vaccinated against COVID-19 (NCNZ, 2021d)
20 August 2021	People aged 12-15 now eligible for vaccination with Pfizer-BioNTech COVID-19 vaccine	
31 August 2021	Auckland and Northland remain at Level 4; Rest of the country returns to Level 3	
7 September 2021	Auckland remains at Level 4; Rest of the country moves to Level 2 Delta	
16 September 2021	Government announces vaccination rate target of 90%	
3 October 2021	Hard border instigated around Auckland, Police Road checks in place	
17 November 2021	'My Vaccine pass' launched – official proof of full vaccination status	
26 November 2021	Omicron named a variant of concern by the World Health Organization	

3 December 2021	New Zealand moves to COVID-19 Protection framework; known as Traffic light system	**Living with COVID** Elimination strategy replaced. New era in COVID-19 nursing commences.
5 December 2021	**Aotearoa New Zealand statistics** Total cases: 12,195 COVID-19 deaths: 44 Vaccine doses administered: 7,724,694	**Global statistics** (John Hopkins University, 2021) Total cases: 265,388,145 COVID-19 deaths: 5,248,747 Vaccine doses administered: 8,151,907,206

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Editorial / He Whakaaro nā te Ētita

Promoting hauora during COVID-19: Time to listen to the narratives of Māori nurses and leaders

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For Māori terms, please see the Nursing Praxis Te Reo Glossary

This special issue of Nursing Praxis in Aotearoa New Zealand reflects how rapidly COVID-19 has changed the landscape of global health and highlights the impact of health and social inequities across Indigenous communities (see, in this issue, Clark et al., 2021, *COVID-19 among Indigenous communities*). In this editorial we honour the otherwise invisible and underrecognised work of Māori nurses as they fortify and weld together their respective communities in the face of very real threats to hauora Māori. We draw upon a whakataukī or 'proverb' that speaks to Māori perspectives of time and protective guidance:

Kia whakatōmuri te haere whakamua

I walk backwards into the future with my eyes fixed on my past

This whakataukī encapsulates how the past is central to and shapes both present and future identity (Rameka, 2016). It reminds us that the strength of carrying one's past into the future is that our ancestors are ever present, both physically and spiritually (Walker, 1996). There are fundamental beliefs, values, and attributes inherited from our tūpuna (ancestors) that guide Māori nurses in their practices today. Many kaupapa Māori principles provide blueprints of how to respond during events like COVID-19.

COVID-19 presents not only a very real threat to hauora Māori but also to whakapapa (the line of descent from one's ancestors). Whakapapa literally means "the process of layering one thing upon another" (Ngata, 2011, p.6). The natural and spiritual histories of Māori as a collective and as individuals are organised by whakapapa. We reflect on the 1918–19 influenza pandemic, which had a devastating impact on the Māori population (Ministry of Health, 2020), and are also drawn to remember our tūpuna Te Puea Hērangi, an influential Māori leader who took the most active leadership role in Waikato in her generation. Te Puea's legacy was to inspire unity; she was a woman of great mana (spiritual authority) and vision who persevered with courage and hard work to help restore the honour and strength of her Tainui people (King, 1977; Parsonson, n.d.).

Underpinning Te Puea's leadership style were the values of manaaki tangata - to care for others; and mahia te mahi, hei painga mō te iwi - doing what is necessary for the wellbeing of the people. Kaitiakitanga is often translated as referring to guardianship or protection, however Kawheru (2000) argues that kaitiakitanga needs to be understood in terms of how mana is maintained, mauri (lifeforce) is protected, tapu (sacredness) is respected, and manaaki (hospitality) is upheld. Te Puea witnessed Māori communities not being able to access the same health care as Pākehā, with "…no outside doctors visiting with assistance… a great deal of contradictory advice… and few supplies recommended for use preventatively and to alleviate symptoms after onset" (King, 1977, p. 100). Māori nurses today are faced with needing to identify ways to protect the mana of whānau during COVID-19 within a health system that has long disregarded it. Māori have a lengthy history of providing health services for whānau, hapū, and iwi against structures that often do not reflect Māori realities. Working

within the confines of inequitable access to healthcare is not a new phenomenon.

The government can learn from the past in terms of what works for Māori today and Māori nurses need to be supported by a health system that is fit for Māori. One hundred years ago Te Puea envisaged a community built on the social determinants of health and attempted to build a for-Māori-by-Māori health system, but plans were blocked by local health authorities (Kerr, 2021). Today's nurses draw from mātauranga Māori (Māori knowledge), tikanga (both traditional customs and practices, and innovations) and whakawhanaungatanga (the process of building relationships) to connect with whānau and include them in decision-making regarding the protection of their whakapapa (lineage). They navigate ongoing challenges to present culturally specific solutions within a hesitant system where the locus of control is disproportionately held by non-Māori. By surfacing and privileging the dominant narratives of Māori nursing leaders, (see, in this issue, Davis et al., 2021, *Steadfast is the rock*), what is truly important to whānau, hapū, and iwi is made crystal clear. As collaborative and holistic health system designers, Māori nurse leaders, nurses and tauiwi allies represent the true Māori health authority.

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Editorial / He Whakaaro nā te Ētita

COVID-19's missing heroes: Nurses' contribution and visibility in Aotearoa New Zealand

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Introduction

Although COVID-19 caught almost all countries unprepared, each country has responded differently to a novel virus that has now caused the death of over five million people worldwide (Johns Hopkins University & Medicine, 2021). Prior to the Delta outbreak (August 2021), the strategy adopted by the government of Aotearoa New Zealand was elimination. This strategy effectively eliminated COVID-19 twice from the community (Stockman, 2021), leading to fewer restrictions and less impact from COVID-19 than has been seen in other countries. The message of 'go hard, go early', which encapsulated the goal of elimination, resonated worldwide for its success, and Aotearoa New Zealand became the envy of the world. Many of my own friends and family overseas would tell me, without prompting, that they would rather be here in Aotearoa New Zealand during this pandemic.

Many commentators have watched Aotearoa New Zealand's response to COVID-19 closely, looking for lessons to be learned. The success of the COVID-19 response has been attributed to the empathetic and decisive leadership of Prime Minister Jacinda Ardern; effective communication with the public; national unity; strict border-control measures, and the use of genomic sequencing for testing and tracing (Baker et al., 2020; Cumming, 2021; Jamieson, 2020). So far, decision-making at the highest levels of government has received the most publicity in Aotearoa New Zealand. The media have particularly singled out Prime Minister Ardern; the Director-General of Health (Dr Ashley Bloomfield); the Minister for COVID-19 response (Chris Hipkins); and the Minister of Finance (Grant Robertson) for their science-based and measured approach to the crisis. It is unclear whether nursing representation exists in the key policy deliberations and decision-making about the national COVID-19 response. However, the Ministry of Health, under which nursing falls, is responsible for implementing health-related decisions and policies.

The lack of nursing visibility on Aotearoa New Zealand's COVID-19 key decision-making table may have affected how the media have covered nursing. The role of nurses in the fight against COVID-19 has remained largely hidden, a scenario that is in stark contrast to the publicity that nurses have received in other countries. In countries such as Canada, Denmark, France, Italy, the UK, and the US, nurses have been elevated to heroic status (Bagnasco et al., 2020; Gagnon & Perron, 2020; Halberg et al., 2021; Hennekam et al., 2020; Jones-Berry, 2020; Sainato, 2021). Nurses in these countries have been publicly valorised through gestures such as public standing ovations, public clapping, and a Banksy artwork in the UK.

Nurses' contribution to the COVID-19 response

Throughout the COVID-19 response in Aotearoa New Zealand, nurses have demonstrated professional values of commitment and compassion, proactively responding to the needs of the communities. Articles in this *Nursing Praxis* Special COVID-19 issue are a testament to the range of work undertaken by nurses. Prior to the first national lockdown in March 2020, there were concerns about the country's capacity to contact trace, test, and manage high numbers of patients in hospital settings (Baker et al., 2020; Cumming, 2021). In response to these concerns, the Ministry of Health, through the Nursing Council of New Zealand, released a statement calling for assistance from nurses, including from those who

were inactive or with lapsed practising certificates (in this issue: Blunden & Poulsen, 2021). Many nurses answered this call and returned to the workforce, undertaking further training as required to work in contact-tracing, COVID-testing stations, testing work, and in specialised units such as intensive care units (ICUs) and emergency departments (EDs). Nurses working in general practices had to adapt to virtual consultations, losing the critical component of in-person patient-nurse interaction in their practice. The disruption experienced in nursing education, including student nurses' clinical placements, meant that nurse educators had to provide pastoral care to distressed students (in this issue: Winnington & Cook, 2021). In aged residential care facilities (in this issue: Hughes et al., 2021), where most of COVID-19 mortality occurred, nurses had to implement policies that restricted family visitations and so they became proxy family members for isolated and dying residents.

Challenges faced

In the early days of COVID-19 in Aotearoa New Zealand, there was inconsistent information about COVID-19's transmission mode. Nurses working as essential workers had to take extra precautions such as doing their laundry separately from those of their household and maintaining distance from those they lived with. Coupled with the concerns around the supply and distribution of personal protective equipment (PPE) in some settings, nurses experienced fear of exposure, an altered sense of safety and a sense of isolation, even when in the same bubble with their families (in this issue: Cook et al., 2021; Jamieson et al., 2021). This increased anxiety and fear for nurses and their families.

Alongside the unprecedented challenges posed by COVID-19, nurses also had to deal with longstanding issues of chronic nursing shortages, unfair pay, and unsafe nurse-patient ratios (Jones, 2021). The pandemic intensified these challenges, leading to industrial disputes, high workload, and burnout. The shortage of nurses across the healthcare sector has seen considerable movement of nurses and high attrition, particularly for new graduate nurses. Nurses working in publicly funded district health boards (DHBs) are paid more than those working in aged residential care, leading to high turnover of nurses in aged care settings, and burnout for nurses who remain in this sector. COVID-19 has perpetuated these longstanding issues and increased the marginalisation that exists within nursing.

Nurses' invisibility

The spectacular success of holding back the spread of community infection meant that the public discourse in Aotearoa New Zealand was not focused on the health sector, but on the whole community. The 'team of 5 million' became the heroic slogan. Compared to other countries, there was a prolonged period of normalcy in public life. The capacity of the healthcare system (at the time of writing) has also not been stretched beyond its capacity. The media's focus on the decision-making prowess of the government and the low impact of COVID-19 in the country intensified the invisibility of individual sectors such as the health sector. Nurses' contribution to the vaccination drive, contact-tracing, testing, protection of aged residential care residents, and management of COVID-19 patients was overshadowed (in this issue, Hughes et al., 2021; Smith et al., 2021).

Since COVID-19 was apparently well managed, there was limited perception of a crisis by the public. According to Franco et al. (2018) heroism narratives are commonly used during crises in relation to people who take actions to further the well-being of others, despite the possibility of personal risks. Arguably, the efforts of nurses during this pandemic meet the criteria for heroism, but this was not visible. Indeed, the only media publicity invoking hero terminology was in relation to Jenny McGee, a New Zealand-born nurse who provided nursing care in ICU to the Prime Minister of the UK (Boris Johnson) when he became unwell from COVID-19 (Moodie, 2020).

Conclusion

The visibility of nursing matters. We cannot afford to sit on the side-line on issues that affect our professional obligations, duty of care, welfare, and image. Nurses are the largest health workforce across all healthcare sectors and communities and need to embrace opportunities to provide narratives and showcase nursing's contribution to the COVID-19 pandemic in Aotearoa New Zealand. While the hero discourse portrayed has raised the profile of nursing in some countries, the context is often limited to high acuity work and vaccinations, while the work of nurses in primary health care and Māori, and Pacific, health providers (in this issue: Davis et al., 2021; Smith et al, 2021); mental health and addiction

services; and aged residential care remains invisible. Nursing now needs to use its collective voice, influence, and research to seek out and highlight the contribution of the nursing workforce; the challenges faced to maintain their own health and wellbeing; efforts and barriers in promoting equitable health outcomes for patients and communities; and their position in key policy decisions at national, regional, and local levels.

As we deal with the surging Delta variant and prepare for emerging variants (such as Omicron) the question for nursing is whether we want to continue in our roles as implementers of policies that are handed to us. Or whether we want to use our size and influence as leverage for representation in places where decision-making that affects our practice, welfare, and profession are being discussed. In part, this will depend on how much success we achieve in showcasing our contribution to the COVID-19 pandemic.

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Reflection / Huritau

Nursing Aotearoa New Zealand and the establishment of the National Close Contact Service: A critical discussion

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Abstract

The COVID-19 pandemic has resulted in inestimable morbidity and mortality across the globe. The healthcare and political leadership of the pandemic within Aotearoa New Zealand has been internationally recognised. The pivotal role of nurses and nursing practice in the establishment of National Close Contact Service (NCCS) has been fundamental in protecting the health of our nation. Using exemplars, and the themes of shared human vulnerability and professional authority, this critical discussion draws on theoretical and philosophical nursing perspectives to demonstrate the authors' involvement in the establishment of the NCCS.

Keywords: COVID-19; national response; nursing; contact tracing; nursing theory

Introduction

The COVID-19 pandemic has resulted in inestimable morbidity and mortality across the globe. The healthcare and political leadership of the pandemic within Aotearoa New Zealand has been internationally recognised for its 'going hard and early' elimination strategy (Jamieson, 2020). Central to this strategy was the ability to contact trace at a population level. In March 2020, nurses led the establishment of the National Close Contact Service (NCCS), later known as the National Investigation and Tracing Centre (Cumming, 2021). Nurses were a critical workforce in the Ministry of Health COVID-19 response team. Using exemplars, this critical discussion draws on theoretical and philosophical nursing perspectives to understand how nursing influenced and directed the experiences of the authors' involvement in the establishment of the NCCS. The exemplars presented feature important contextual timepoints experienced by the authors and inform the critical discussion.

Exemplar 1: Shared human vulnerability

> *On the 23rd March, 2020, a small team of contact tracers in a room at the Ministry of Health paused calling the public and listened to the Prime Minister announce that New Zealanders had 48 hours to plan and prepare for a national lockdown. The address focused on the necessity to eliminate transmission to protect the New Zealand public from high death rates and an overwhelmed health system that was apparent in Italy. In the room there was a palpable sense of shared human vulnerability and an overwhelming responsibility to act fast. Within five minutes of the announcement nurses returned to calling those of the public who had been in close contact with positive COVID-19 cases.*

The sense of urgency and shared vulnerability in this exemplar prompts the question of how to shift psychologically and emotionally from thinking about family and self, to the needs of the public? As nurses we are educationally, experientially, and professionally socialised to cognitively shift from *self* toward *other* without hesitation. This well recognised mechanism of compartmentalisation is used to protect a nurse from extreme distress (Menzies, 1960; Rook, 2017). In this case, the extreme distress related to the worry about family, whānau, and friends in light of COVID-19 and the need for nurses to focus on their professional responsibilities and social mandate to keep communities safe. Nurses'

ability to support the community, in a time of uncertainty, is founded in the trust that the public have in the nursing profession particularly during times of human vulnerability (Dinç & Gastmans, 2012; Sellman, 2005). This inherent trust was critical to callers being effective in delivering the public health message. This trust is embodied in nursing's Code of Conduct (Nursing Council of New Zealand, 2012) and supported by an unwritten mandate from the public, to deliver safe and effective care and act in a way that has their best interests in mind.

Given the heightened public anxiety about COVID-19 and the uncertainty about the future, especially knowing vaccines were still being developed, many New Zealanders exhibited high degrees of stress (Gasteiger et al., 2021). As nurses we employed what Meehan (2012, p.2910) describes as "contagious calmness" during the COVID-19 calls to the public to establish the emotional tone of the conversations. Contagious calmness is reflected in nurses' attitudes and "quiet dependability" and "alertness" to counter anxieties that arose during these phone calls as the pandemic evolved. We noticed that the nurse's tone of voice and skilled communication offered reassurance and from our perspective, engendered public trust.

Exemplar 2: Professional authority

> *Within one week of setting up NCCS the size of the team expanded exponentially from a handful of key personnel on the first day to up to 50 contact trace callers. Most of these callers were nurses and worked as part of the operations team within the larger COVID-19 response team. In the first few days the operations team was operating from an excel spreadsheet but within six days had moved to an evolving online national contact tracing system. The call centre team were required to learn new systems and processes. Sometimes these systems and processes changed multiple times a day as new information became available. Education and training were ongoing as staff were being orientated to the role daily as the need of the NCCS expanded.*

Nurses took professional authority and leadership in the NCCS space to develop a high standard of service that was undertaken with professional self-confidence. For example, in supporting members of the public who were identified as close contacts, the authors participated in the development of the first call scripts and the 'three phone call' approach used to provide public health guidance regarding self-isolation and infection control measures. This was done to standardise the messaging for the public and the clinical team, to reduce error and for auditing and data collection. These 'scripts' were regularly revised as new information became available.

Our self-confidence in this space was founded in our understanding of how health systems work, population health, and how to communicate effectively. During our time working in the NCCS the authors used their knowledge to work in partnership and collaborate across government agencies such as Ministry of Business Innovation and Employment, Ministry of Justice, Ministry of Social Development, Public Health Units, District Health Boards, Primary Health Care and with members of the public. Nurses were involved in strategic and policy development across the whole NCCS, tested the National Contact Tracing System (data management system), provided mentorship to staff within the call centre, and actively supported each other. The reality of the work was situated in uncertainty, "a lack of sureness" about what was ahead, primarily driven by the complexity of the evolving situation (Begun & Kaissi, 2005, p.109) and current lack of scientific evidence. However, the uncertainty was not debilitating for the nursing team who were used to working in changeable and complex healthcare systems.

These activities undertaken by nurses were guided by shared professional values and professional identity as they enacted the nursing process. Nurses assessed the situation, considered the information, diagnosed (identified the nature of the problem; not enough data, welfare concerns, cultural needs etc), planned in partnership to determine what was needed, implemented the plan, and evaluated regularly. One issue identified early on was the need to support families with welfare needs as a direct consequence of self-isolation requirements. These welfare needs ranged from financial support due to loss of earnings, enabling contactless food and medicine deliveries in geographically remote areas and transportation to COVID-19 testing stations. This required the nursing team to systematically map out the referral process, and to lead administrative processes that integrated with existing systems used by multiple government and non-government agencies. The aim being to embed failsafe processes

that ensured welfare support was delivered in a timely manner. Orlando's (1972) deliberative nursing process theory emphasises the importance of the reciprocal relationship between the patient and nurse. Even though in this instance nurses were not liaising with patients *per se,* the principles of reciprocity, and the identification of needs were key in their critical thinking, moral reasoning and decision making. Ultimately this guided nurses to a rational examination of the presented data and analysis to draw conclusions and alternatives particularly in the presence of uncertainty.

This critical reflection draws attention to the theoretical and philosophical perspectives of nursing and how it influenced the nursing workforce in the development, organisation, and management of the NCCS. These exemplars showcase the skills, knowledge and scholarship required to respond to and protect the community and country during a rapidly evolving global health crisis.

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Reflection / Huritau

Encounters with uncertainty and complexity: Reflecting on infection prevention and control nursing in Aotearoa during the COVID-19 pandemic

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Abstract

The disruptiveness of the COVID-19 pandemic created the need for rapid responses in health systems already under pressure and challenged nursing in Aotearoa New Zealand with levels of uncertainty and complexity not previously encountered. For the small number of specialists in the field of infection prevention and control (IPC) nursing nationally, this meant having to adapt to new ways of working and collaborating in situations where the pace of change was extraordinary. This short commentary describes the author's experiences working as an infection prevention and control nurse leader and is underpinned by complex adaptive systems thinking and the concept of collective competence as theoretical frameworks through which to conceptualise and account for the COVID-19 response in the Canterbury region.

Keywords: COVID-19; infection prevention and control; nursing

Introduction

The COVID-19 (SARS-CoV-2 virus) pandemic has required rapid adaptation across health systems. Traditional health sector solutions to changes in the external environment are often driven top-down, though when faced with uncertainty and unpredictable situations, collaboration and shared responsibility may be more effective (Figueria et al., 2019; Hammond, 2000). An approach such as complex adaptive systems thinking, which has risen out of the study of biological and social systems in the field of complexity science (Senge, 2006; Waldrop, 1992), offers organisational leaders in health care a useful model to understand complex health systems, including how groups self-organise, learn, adapt and evolve in dynamically changing environments such as the COVID-19 pandemic response (Ratnapalan & Lang, 2020; Rusoja et al., 2018). Furthermore, the cognitive and collaborative complexity of decision-making that must be negotiated by healthcare teams operating in the COVID-19 response has been complicated by the number and diversity of actors involved and by the potentially diverging values and objectives of these actors. This means even the process of agreeing on the exact nature of problems to be tackled is made more difficult, let alone finding agreement on broadly acceptable long-term solutions (Brown et al., 2010). Boreham (2004) defined three key characteristics of teams that effectively navigate these types of challenges: (a) collective sense-making of events; (b) making use of the knowledge base of the collective as a whole; and (c) a sense of interdependency. Boreham termed this collective competence. These two frameworks have supported and informed the author's understanding of the COVID-19 response in the Canterbury region.

Infection and prevention control response

As news of an emerging respiratory virus pandemic hit the headlines in early 2020 (McNeil, 2020), there was a noticeable increase in phone and email enquiries as anxious clinical staff sought infection and prevention control (IPC) advice. An interdisciplinary team from a range of health professions, joined forces to collectively support the IPC response to the pandemic. The integrated health system model in the Canterbury region has been previously described (Timmins & Ham, 2013) and

this model enabled the power of these existing networks to be promptly harnessed. At first, this coming together was unstructured and informal. Available colleagues met together first thing each morning and worked through questions of the day flooding in from clinicians via different pathways as best we could. Later this evolved into a formal Technical Advisory Group.

There was significant depth of experience and knowledge available from subject matter experts across the Canterbury Health System (including Canterbury Health Laboratories, Community and Public Health, Canterbury Primary Response Group, Department of Infectious Diseases, IPC Service) that provided strategic and operational input on infection prevention and control to health providers and other agencies across the region (Table 1). Strategic objectives focused on: a) monitoring overseas developments and advising on implications for the Canterbury region; b) ensuring IPC policy and practice remained fit for purpose and responsive to changes in epidemiology; and c) providing balanced, timely and evidence-based decisions on complex, far-reaching, technical matters. However, achieving these objectives was no easy task. Interdisciplinary synergies and specialist knowledge were central to progress but as with other district health boards, we were dealing with a new threat and limited knowledge on how to best mitigate risks created by the SARS-CoV-2 virus.

The key challenge to be navigated was the difficulty posed by decision-making under uncertainty and dealing with the characteristic messiness arising from intrinsic cognitive and collaborative complexities in the situation (Berger et al., 2019; Lingard, 2012; Kahneman et al., 1982). For example, progress towards decisions was non-linear because as we collectively sought to make sense of the rapidly evolving international pandemic crisis and provide sound advice, we encountered obstacles such as conflicting opinions, knowledge deficits, physical and cognitive fatigue, and the general burden of responsibility. This led to back-tracking, redirecting and reframing of problems (Blumenthal-Barby & Krieger, 2015; Ghosh, 2004). On the other hand, group performance benefited from the sense of interdependency and being in this together. We relied on each other's expertise and understood that decisions made by consensus were stronger and safer. Being able to tap into the shared knowledge base of the team as a whole, enabled problems to be conceptualised in novel ways and open interactions including positive and negative feedback prompted necessary modifications in thinking to ultimately enable satisfactory collaborative decisions (Boreham, 2004; Curşeu & Schruijer, 2012; Lamb et al., 2011).

Looking back over the COVID-19 response to date, the most significant occurrence from an IPC nursing perspective has been a paradigm shift in relation to respiratory virus transmission. In the traditional IPC view, the mode of droplet transmission is where infectious droplets greater than 5µm in diameter fall rapidly to the ground under gravity, and therefore are transmitted only over a limited distance (≤1m). Another mode of airborne transmission is where infectious droplet nuclei, defined as 5µm or smaller in size, are carried on air currents particularly indoors (Centers for Disease Control and Prevention, 2016). Early in the pandemic, published evidence and expert guidance indicated that transmission of SARS-CoV-2 virus was predominantly via the droplet route and that airborne transmission had not been reported (Ong et al., 2020; World Health Organisation, 2020). However, transmission investigations undertaken locally ultimately led to a rethinking of respiratory virus transmission, at least as far as it related to SARS-CoV-2 (Eichler et al., 2021).

A turning point in the thinking about transmission occurred during the investigation of two cases of guest-to-nurse transmission events linked to a large cohort of mariners with COVID-19 in a managed isolation and quarantine facility. At that time, we were working with the droplet transmission model, where the recommended mask was a surgical mask (vaccination was not yet available). This investigation established that there were no breeches of personal protective equipment and evidence drove consideration to other possible explanations (Lancet Respiratory Medicine, 2020). In this instance, transmission was ultimately identified as being due to poor ventilation and virus-laden aerosol particles, carried from rooms into corridors in which the nursing staff were working when doors were opened and closed. This realisation also triggered re-examination of a guest-to-guest transmission event that had occurred earlier in another Canterbury managed isolation and quarantine facility (initially linked to possible fomite transmission through the

Table 1: Canterbury region's COVID-19 Integrated Infection Prevention and Control Response

	Objectives	Examples of IPC contributions to COVID-19 Response
Strategic Input	1. *Monitoring overseas developments and advising on implications for the Canterbury region* 2. *Ensuring IPC policy and practice remains fit for purpose and responsive to changes in epidemiology* 3. *Providing balanced, timely and evidence-based decisions on complex, far-reaching, technical aspects of COVID-19 response*	**Clinical Governance** - COVID-19 Technical Advisory Group membership **Leadership in Policy and Procedure** - Canterbury DHB IPC SOP[1] "Guidance for Isolation and Quarantine Hotels" adopted as foundation for MBIE's national IPC SOP - IPC Specialist input into national MOH ventilation and air cleaning project (and ventilation protocols in MIQF) - CDHB change to N95 mask use for health staff (following staff infection at Sudima MIQF) adopted into MBIE's national IPC SOP **Critical Incident Investigations** - Case investigation Crowne Plaza MIQF guest-to-guest transmission - Case investigation Sudima MIQF guest-to-staff transmission - Sports teams breeches of exemption conditions in MIQF - Breeches of protocols by returnees in MIQF **Service on National Committees** - HQSC Strategic IPC Advisory Group (SIPCAG) - MOH National IPC Expert Group (NIPCEG) - MOH COVID-19 Clinical Governance Meeting - MOH National IPC Leads - MOH National MIQF IPC Leads
Operational Input	1. *Coordinating with the laboratory and Public Health to support surveillance and testing* 2. *Liaising with key stakeholders on trends and control strategies* 3. *Collaborating with regional and national stakeholders on transmission risk management* 4. *Identifying opportunities to improve safety, health and welfare of staff*	**Surveillance** - Monitoring incidence and prevalence of cases in the electronic surveillance system (ICNet) **Management of Confirmed Cases and Close Contacts** - Supporting Public Health as required with transmission investigations and contact tracing - Overseeing IPC protocols for positive case transfers to quarantine **Canterbury Managed Isolation and Quarantine Facilities** - Assessing hotel suitability to function as MIQF - Advising on room configuration for quarantine/isolation in MIQF - Establishing IPC policy and procedure for MIQF - Partnering with Canterbury Regional Isolation and Quarantine (C-RIQ) staff on IPC requirements in MIQF - Conducting observational walk-throughs and assessments of IPC SOPs in MIQF - On-going training for all workforce groups <u>Special Projects</u> - Providing IPC expert input on appropriate protocols for special groups with exemptions i.e. international sports teams - Reviewing pathways and planned renovations at Christchurch Airport (Red pathway for returnees in both domestic & international arrivals as travel bubbles introduced with neighbouring countries) **Training and Education (across Canterbury Health System and beyond)** - Staff training (all workforce groups and across sectors) - N95 mask use/PPE refresher training/nasopharyngeal swabbing technique - Coaching/guidance for staff on IPC SOPs and IPC protocols

[1]Standard operating procedure

use of communal rubbish bins). Closed-circuit television footage was reviewed, and it was noted that during routine day 12 testing only a 50-second window of time elapsed between one door closing and the next door opening for the cases. It was hypothesised that suspended aerosol particles were a more probable mode of transmission (Eichler et al., 2021). Ultimately, SARS-CoV-2 transmission events have helped us understand that virus-laden infectious respiratory particles exist on a continuum from large droplets to droplet nuclei and aerosols (Tang et al., 2021). Practice has consequently changed and includes the use of appropriate respiratory protection (fit-tested N95 masks) and transmission-based precautions for airborne diseases (Lancet Respiratory Medicine, 2020; Tang et al., 2021).

Future Perspectives

The COVID-19 pandemic continues to pose significant challenges to health systems and wider social systems that were already under strain. Yet a continued response to this crisis is required. Understanding the Canterbury response to COVID-19 has been supported by complex adaptive systems thinking and the concept of collective competence. It has highlighted how an effective response to health service challenges is facilitated by leveraging off existing networks, promoting multi-stakeholder engagement and sharing knowledge across disciplines with a collaborative approach.

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Nursing Praxis in Aotearoa New Zealand
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Reflection / Huritau

Emergency Department pandemic preparedness: Putting research into action

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Abstract

Emergency nurses are experts at responding rapidly to change. Their everyday practice involves constant assessment and prioritisation of a dynamic workload to meet the needs of patients across the spectrum of illness and injury. When COVID-19 arrived in Aotearoa New Zealand in February 2020, staff in hospitals around the country rushed to prepare for the wave of infected patients seen overseas. Emergency nurses' ability to adapt to unanticipated situations whilst working in an overcrowded and resource-constrained system made them important contributers to COVID-19 pandemic planning. Finding myself in the unique position of having just completed novel research into the perspectives of emergency nurses around pandemic preparedness, I felt a responsibility to ensure these perspectives were included in the pandemic response at the busy tertiary emergency department where I worked. Key findings from my prior research included the importance of managing the fear nurses felt about getting sick when caring for patients and of spreading disease to their family, friends, or to other vulnerable patients within their care.

Keywords: COVID-19; emergency department; nursing; pandemic planning

All people living in Aotearoa New Zealand have access to public emergency medical care, but it became apparent early in the pandemic that this right needed to be carefully balanced with protecting emergency department (ED) staff and other patients from the spread of the COVID-19 virus. This reflection focuses on one of the most significant practice changes for nurses; the introduction of COVID-19 screening protocols for all patients and visitors accessing the ED. The early identification and isolation of potentially infectious patients was an important component of the new screening policy and a key strategy that nurses wanted included in future pandemic plans (Lockett et al., 2021).

The burden of screening fell to nurses as the first point of contact for patients on arrival in ED through the triage process. The screening measures underwent many iterations as the COVID-19 situation rapidly evolved and advice from the World Health Organization and the Ministry of Health frequently changed (Ministry of Health, 2021; World Health Organization, 2021). Triage nurses were initially required to ask about specific international travel, but as COVID-19 spread rapidly internationally, this became unsustainable for nurses tasked with both COVID-19 risk assessment and a general rapid triage assessment. Nurses were concerned they may overlook crucial assessment cues regarding the patient's actual presenting complaint, and that infectious patients may have already transmitted the virus in the waiting room by the time the risk was identified at the point of triage. The ED senior leadership team, of which I was a part of, listened to these concerns and adapted the process to occur before the triage point. This change allowed infectious patients to be diverted from the general waiting room to another entrance where infection control precautions could be maintained throughout. Additionally, screening was extended to visitors, and their details were recorded to allow for retrospective

contact tracing in the event of a positive case. This system preceded by some weeks the introduction of the NZ COVID Tracer app, utilised by the Aotearoa New Zealand government to record the movements of the population (Ministry of Health, 2020).

The separation of infectious and non-infectious patients was a key strategy nurses in my research considered necessary to minimise the risk of disease transmission within the ED. This was based on past instances where vulnerable patients were placed in close proximity to others with infectious diseases, such as influenza, due to environmental constraints of the department or the lack of adequate isolation rooms (Lockett et al., 2021). Although the purpose of this pre-triage screening is to identify and isolate potentially infectious patients, it served a dual purpose that helped to address another fear nurses expressed in my research. Emergency nurses highlighted how challenging the triage process can be and their anxiety around making the right decision. In a pandemic situation, these nurses feared being blamed or censured for not identifying an infectious patient at triage and the impact this oversight could have on staff and other patients. In addressing these fears, the screening tool evolved from an initial three questions into a formalised algorithm that stratified risk based on Ministry of Health case definition advice. This meant the process was objective, rather than a mix of objective and subjective assessment as in routine triage decision-making (Australasian College of Emergency Medicine, 2016). Separating the screening process from the already-challenging triage process also meant that the responsibility for identifying potentially infectious patients was not put solely upon a single individual triage nurse (Lockett et al., 2021).

The screening process, and many other changes introduced during the pandemic, has had a positive impact both on ED daily operations as well as the wider hospital. The screening of patients and visitors at the ED entrance subsequently helps to protect the health and safety of staff in other acute care areas, and reduces the likelihood of an infected patient or visitor accessing a ward environment and spreading infection (Wang et al., 2020). Additionally, as ED was the first area to introduce a formalised screening process, the District Heath Board was able to rapidly adapt the ED screening algorithm to be used at visitor entrances when COVID-19 community transmission was at its highest and Aotearoa New Zealand's alert levels were raised. The underlying motivation behind the introduction of the screening system was the understanding that we could not expect nurses to assauge the fears of the general public during a worldwide pandemic if they themselves did not feel safe in their own workplace. Empowering ED nurses to be involved in the pandemic response was key to ensuring this group of healthcare workers felt heard.

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Reflection / Huritau

Reviving resuscitation skills: Non-invasive ventilator training for ward nurses

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Abstract

As part of the pro-active response in anticipation of a possible outbreak of COVID-19 in Aotearoa New Zealand, ward nurses at Wellington Regional Hospital were requested by senior nursing leadership to participate and engage in non-invasive ventilation training. The objective of this education was to allow adequate response and provision of lifesaving non-invasive ventilation to critically unwell patients. Identifying potential nurses and ascertaining the amount of training and resources involved in mass training was critical to the success of the programme. The variation in ventilation equipment was a significant detail that had contributed to the mounting challenge of addressing the lack of both human and technological resources. This reflection piece describes the education initiative and the circumstances and practicalities of creating, teaching, and training advanced skills (non-invasive ventilation education) to ward nurses with limited respiratory experience.

Keywords: COVID-19; intensive care; non-invasive ventilation; nursing

Background

The COVID-19 pandemic continues to threaten not only the health of people worldwide but has also pushed the healthcare systems globally to the brink of collapse. The most concerning complication of COVID-19 is acute hypoxaemic respiratory failure; a condition that usually requires mechanical ventilation (Wilcox, 2020). Internationally, there is a search to find affordable and practical solutions to treat, manage and care for patients amidst the global shortage in intensive care unit (ICU) beds and ventilator supply (Andellini, et al., 2020).

Non-invasive ventilation (NIV) is an important strategy in COVID-19 management, particularly in countries where there are limited intensive care resources (Bertaina, et al., 2021). Studies have shown that the use of NIV on patients in the early stages of COVID-19 infection potentially avoids the need for intubation and mechanical ventilation (Menzella, et al., 2021).

The Aotearoa New Zealand problem

Aotearoa New Zealand has limited ICU resources and a wave of COVID-19 patients could have catastrophic effects. As of the 29th of April 2020, Aotearoa New Zealand had a ventilator capacity of 334, and an ICU capacity of 358. Capital and Coast District Health Board (CCDHB) had a ventilator capacity of 37 and an ICU capacity of 31 (Ministry of Health - New Zealand, 2020).

The initiative

In anticipation of the potentially devastating effect COVID-19 can have on the health system, CCDHB created capability to temporarily increase the medical ward's high-dependency bay (HDB) capacity from four beds to eight beds, with the potential to operate beyond the bed limit dependent on patient requirements. This initiative resulted in the need for an increased number of ward nurses to deliver NIV therapy effectively and safely to affected patients. The objective was to upskill ward nurses to allow adequate provision of timely, lifesaving NIV for unwell patients, improving their health outcomes,

should the need exceed Wellington Regional Hospital's current capacity. This planning has set a precedent for future pandemic planning that would involve NIV-trained staff.

Due to the overwhelming workload related to the pandemic planning i.e., development of ward-specific COVID-19 protocols, it had been a challenge to get the right people – subject matter experts in the same room. As a nurse practitioner, i worked alongside other colleagues comprising of nurse educators from the medical wards to develop, organise, and facilitate a study day repeated in 10 sessions to upskill identified nursing staff. The study day included both a theoretical and practical module.

One of the initial and significant steps was to gather current training records to ascertain nurses who were currently trained and certified in NIV and to identify potential nurses who may be eligible for NIV certification. The group decided that it would be advantageous if we upskilled a group of nurses who fitted the following criteria: confident and competent in caring for patients with respiratory conditions; previous experience in a medical ward; preferably with previous experience or knowledge on how and when to initiate and control NIV; nurses who were low risk in the event of contracting COVID-19; i.e., age <65 years, not pregnant, and not immuno-compromised.

We were transparent and realistic with our expectations from the beginning knowing that nurses who were recently trained in NIV would not be experts in the field. Rather, our aim was to increase their awareness and knowledge about NIV therapy and to build confidence and competence over time.

We organised with charge nurse managers to release identified staff for a full-day training followed by an orientation shift in the High Dependency Bay as staffing levels allowed. It was a challenge to plan and undertake the study day, as staffing constraints at times made it arduous to release staff from clinical shifts. Finding a suitable venue to hold training was difficult as we had to ensure that the venue allowed for social distancing, while still promoting collaboration and the feeling of togetherness. Limiting the numbers of attendees meant that the team had to run the sessions more frequently to achieve our goal of training potential nurses.

Developing the programme for the training days was demanding as we had to ensure that the topics presented were relevant, interesting, and that the content was easily understood. The instructors were inspired to teach as they were able to share knowledge and hone the nurses' skills in NIV. The training days had a specific focus on respiratory physiology, respiratory assessment, NIV, and blood gas interpretation. The practical aspect covered the set-up, use, troubleshooting and management of the NIV equipment.

An unexpected challenge resulted from the introduction of new ventilators dissimilar to those currently in use at Wellington Regional Hospital. Orientation to the new ventilators meant that we had to train everyone including ourselves and staff who were deemed as NIV-certified, to familiarise with the new set-up, updates, general operation, cleaning, storage, and maintenance. The new ventilators operate using different pressure measurements from what we currently utilise. The implication is that there is a potential to administer the wrong pressures if staff are not able to decipher or convert the pressure readings from one ventilator to the other. To mitigate the risks, we invested in more resources, energy, and time being allocated to the practical training component compared to what was originally planned.

One of the many things that the Nurse Educators had to prioritise was being present and readily available clinically to empower and educate nurses. Taking advantage of every opportunity to teach has been a key agenda. We wanted nurses to feel supported and enjoy the learning opportunity; to view the situation as an opportunity to excel rather than a challenge to overcome.

Sustaining change

Senior nurses were allocated the role of "NIV champion". The purpose of this designation was to help in delivering bedside clinical support to their colleagues when required and assisting the Nurse Educators to educate and assess competency and identify training gaps in the ward. To date we have trained an additional 93 nurses, growing the total number of NIV-trained nurses from 46 to 139; a 202% increase. Most of the trainees will continue to require supervision in the use of NIV, and ongoing support to develop their confidence and competence. However, we consider this a milestone.

Sustainability is an ongoing challenge. Nurse educators need to maintain a robust system for

administration, forward planning, organisation, record keeping, and provision of accessible training materials to keep traction and momentum. Protected management time to achieve these goals should be embedded in the ongoing pandemic planning. Feedback from the participants after the day's programme had been instrumental in ensuring the training is relevant and has a positive practice impact for everyone involved.

Recommendation

An NIV steering group should be officially established in our organisation. The development of NIV e-learning and training packages should be prioritised and supported by capability and development to promote ongoing, self-initiated learning.

The ongoing global outbreak of COVID-19 continues to threaten the already fragile state of the Aotearoa New Zealand healthcare system. Despite constraints, nurses have consistently shown the world what resilience looks like. Preparedness is key to be able to address ongoing and evolving issues. Having a sustainable organisational, and preferably national training programme for NIV, would ensure that patients receive efficient, effective, and quality care.

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Reflection / Huritau

The coming of age: Aged residential care nursing in Aotearoa New Zealand in the times of COVID-19

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Abstract

For years aged care nursing has been largely overlooked and marginalised from mainstream healthcare. COVID-19 brought both aged residential care and nursing into sharp focus for Aotearoa New Zealand. This paper provides a commentary on the work of executive nurses within the Nursing Leadership Group of the New Zealand Aged Care Association as COVID-19 spread into some ARC facilities in early 2020 and threatened the health and wellbeing of many residents and nurses. The group influenced the agenda and implementation of policies for Aged Residential Care and brought the voice of nursing and residents of aged care to the forefront at national and regional levels.

Keywords: aged residential care; COVID-19; leadership; nursing; nursing homes

Introduction

The COVID-19 pandemic brought aged residential care (ARC) nursing into sharp focus across Aotearoa New Zealand. The first positive case of COVID-19 in a rest home was on 22 March 2020 (Ministry of Health, 2020) just three weeks after the first confirmed case. The aged care sector was on high alert due to the impact of COVID-19 on older adults being reported internationally. By March 2020, D'Adamo et al. (2020) were outlining the high mortality rates from COVID-19 in America and providing insights for ARC settings.

This article reflects the experience of national nurse leaders in the ARC sector during the early months of the global pandemic. The authors of this article are members of the New Zealand Aged Care Association (NZACA) Nursing Leadership Group (NLG) which was formed in December 2019 prior to knowledge of the impending pandemic. The goal of NLG was to represent and advocate for nurses working in the ARC sector and for those vulnerable populations in our care. The ambition of NLG was to increase the profile and encourage greater recognition of registered nurses practicing in ARC facilities. Aged care requires specialised nursing skills and without skilled nursing, quality care outcomes cannot be achieved (Dellefield, 2015; Hughes, 2020). We met for the first time on 22 January 2020 in Wellington as COVID-19 was spreading around the globe and its arrival in Aotearoa New Zealand seemed imminent. Our focus quickly became COVID-19 management in the ARC sector to protect our people and the residents. In this reflective piece we present the role the NLG had in shaping the ARC COVID-19 response in Aotearoa New Zealand, including the challenges

experienced, learnings for the sector, ongoing work, and opportunities for the future.

Aged residential care beds outnumber acute hospital beds by more than three times (McDougall, 2020). In March 2020, there were approximately 38,000 ARC beds across 670 facilities with an average occupancy level of 87.9%. The ARC sector includes rest homes, secure dementia communities, geriatric/medical hospitals, and psychogeriatric hospital services with an increased number of facilities offering various levels of care to prevent residents having to change facilities if their level of care changes (McDougall, 2020). The population within an ARC facility consists of residents who are very frail and can be clinically unstable; residents who are well but disabled and have very high care needs; residents who have cognitive impairment or mental health issues, with some requiring a secure environment; and residents who are receiving end of life care.

Despite the extensive services the ARC sector provides for older adults, the sector has suffered an image problem for years (Banks, 2018; Colgrave & Austen, 2016; Montayre, 2015). It is generally not perceived as being part of mainstream health services, which has impacted on the way services, including nursing services were viewed. ARC facilities have not been seen as a place where nurses could flourish while working with autonomy at one's full scope of practice (Colgrave & Austen, 2016; Cooper et al, 2017). During the COVID-19 response this translated into a lack of understanding by district health boards (DHBs) in relation to not only how ARC systems are structured, but also how nursing care is delivered on a twenty-four-hour, seven day a week basis for this complex and vulnerable population. The NLG found we were spending time helping DHB managers understand the practice setting of an ARC: we are not small wards or hospitals, we are large residential homes where people live – they are not sterile, clinical environments.

The health system was placing different expectations on the ARC sector across the country. District health boards, the Auditor General, and the Ombudsman were undertaking audits to ascertain ARC preparedness for a COVID-19 response particularly pertaining to dementia and psychogeriatric care and personal protective equipment (PPE) supply issues (Hughes, 2020). During this time, we perceived the media were poised to pounce - any resident testing positive for COVID-19 was represented as an ARC sector failure (Lourens, 2020). Where calm, respect, support, and collaboration were needed, there was instead a sense of chaos and fear from within the health sector which was portrayed through the media headlines and articles (Jones, 2020). Despite this, there was a groundswell of strength, pride, and cohesion in the sector. The NLG ARC nursing voice rose up, demanding to be heard, bringing our voice to decision-making whether invited or not. Within the sector there was never a blame mentality in relation to outbreaks, but simply a desire to support and learn more about how to navigate this new threat (Hughes, 2020). Following one of the first facility's experience of a COVID-19 outbreak we invited their clinical services director to join our group, so we could learn quickly what had worked well, what they had learnt, and how we could translate those learnings to be operationalised for ARC nationally.

During COVID-19, the NLG determined the need to step into the void advocating for clinical care in ARC. The NLG became galvanised as we were engaged daily by providers, DHBs, Ministry of Health (MOH) and Public Health Unit (PHU) representatives requesting or generating guidance and advice, which was at times conflicting. We were guided in our experience and knowledge that sound collaboration would result in better outcomes for the residents and staff (Dykgraaf et al., 2021; Kain et al., 2021). Over the initial twelve-week period the NLG played a crucial role not only in representing the ARC providers, but also in representing the needs of older New Zealanders in care. We zoomed daily Monday to Friday (and if necessary, over the weekend) at the end of our 'day jobs.' We learnt quickly how to share documents and edit NZACA or MOH guidance deftly. We provided much needed wellbeing support to each other, and shared resources and expertise. NLG members participated in multiple national forums to represent aged care, at times with politicians, Ministers, MOH officials, and DHB Chief Executive Officers (CEOs). The knowledge, skills, and attributes we held as nurse leaders were tested as these multiple groups were traversed, always ensuring that the residents, whānau, and the people who care for them were at the centre of our thinking, policies, and decision making. We shared with MOH and DHB's our own plans we had produced for our employers, ranging from outbreak plans (which included how to manage in one bubble clients with dementia), mental health material for staff anxiety management and vulnerable staff assessment tools. At one stage

between us all we were providing advice to over eight national committees, including the Office of the Prime Minister's Chief Science Advisors and the Anti-Microbial Infection and Control Working Group. We also were successful in having a meeting at Parliament with cross party representatives in November 2020 to discuss the issues of ARC nursing and COVID-19 related issues, particularly lobbying for early vaccination access for our residents and staff.

The following captures the main themes of NLG involvement during the initial response and much of this is ongoing.

Advocating and influencing

Members of NLG became part of multiple MOH and DHB working groups, ensuring the context of ARC was understood, from small through to large national providers. Advocating for consistency in messaging and ensuring the one source of truth was the MOH. A subgroup met with the MOH regularly to advance co-designed screening tools, and strongly advocating for pre-admission testing. Advocacy work extended beyond healthcare; for example, contact was made with a large grocery chain to challenge a decision determining that aged care workers were not deemed essential workers, yet DHB workers were. Letters were written, phone calls were made, and NLG became vocal in raising the unfair practices that were occurring. During this time, NLG adopted the mantra 'nothing about us without us', ironically a phrase used for many years by marginalised groups wanting a say in how they are governed (Charlton, 1998).

Translation and protection

As various documents and advice from MOH were reviewed, emphasis was put on language which was meaningful to the aged care sector. The approaches used and terminology of the DHBs and PHUs were translated into the practice context of ARC. An example was the concept of isolation for those in dementia care communities and the term 'household bubble' was coined in the ARC setting. The group provided critical analysis of evidence and approaches to ensure infection prevention and control guidance for ARC was realistic and operationally feasible. During the 'stocktake' of ARC facilities by the DHB's, we were being asked how we would cohort 'patients' (known in our sector as residents). We had to make it understood that residents reside in their rooms, that it is their own and only space where they have their curios and family photos on their walls, SKY connections, and telephones installed. Rooms are not all the same and it is not reasonable to switch residents around an ARC facility, as hospitals move patients. We emphasised to DHBs, MOH, PHUs that being different didn't make it wrong.

The use of Personal Protective Equipment (PPE) was always on the agenda; what to use when; whether it was appropriate to put masks on residents; how and where to don and doff. Solutions needed to be applied to a variety of different ARC building environments, ranging from small to large, modern to old. We challenged DHBs and the MOH when views were expressed that ARC's need for PPE was less important than hospital settings.

Logistical operations

Procurement of PPE and certainty of access should an outbreak occur became a logistical challenge for all in the ARC sector. Supplies normally available became harder to obtain. All the DHBs applied different methodologies to access PPE. NLG shared experiences, suggestions, problem-solved and even donated PPE to those in need. Every DHB had a different process, some seeing the value in working closely with ARC, others seemed to lack the principle of partnership. One of the NLG members went as relief manager into a facility who had most of their staff stood down as close contacts once COVID-19 was detected. She was able to give us daily updates 'from the field' and helped shape our guidance advice to MOH, the NZACA membership, and in our own organisations. Obtaining N95 masks in a site with active COVID was an unexpected difficulty; PPE arriving well expired with gowns and the elastic on masks disintegrating when donned were prime examples of this.

Communications and Quick Thinking

Critiquing and counterbalancing the inconsistent information that was coming from a variety of sources, particularly DHBs and media (van Beynen, 2020) was a central part of our role. In the early days, predictions of ARC providers becoming morgues was unsettling (Dosa et al., 2020). We focussed on sharing every piece of overseas evidence we found and also brought information from offshore nursing colleagues to learn from to minimise the mass casualties being experienced elsewhere. We received independent advice from a New Zealand microbiologist (Ben Harris) with a specific interest in ARC. We advocated for staff surveillance testing, at

least daily temperature and oxygen saturation checking for residents, mask wearing for staff, and strict screening of staff and visitors when they returned. Providers developed specific communications for their facilities, for example, psychosocial support material and facility visiting frameworks for clarity.

As International Nurses Day 2020 was celebrated globally, the NLG hosted a webinar for the sector celebrating the role of the aged care nurses. Hundreds of nurses and others connected into this webinar in the middle of the level 4 lockdown. NLG wanted to connect ARC nurses around the country to acknowledge their work, their sacrifices, their fears, and their commitment to each other and the vulnerable residents in ARC care. As leaders we witnessed first-hand the ARC workforce step up, become surrogate family when our doors suddenly shut in March 2020 and all physical contact with their whānau ceased. These staff members lived in fear of taking COVID-19 home to their own families, or inadvertently bringing it into the facility. An already stretched workforce, ARC staff worked above and beyond to keep facilities full of joy and laughter, step into activity roles, be conduits for families, while often juggling reduced family income with their partners not able to work. Staff reported keeping their children at home from school longer just to be sure they didn't bring COVID-19 home. They willingly had invasive nasal swabs whenever they got a hint of cold or flu symptoms. It was a wonderful opportunity to acknowledge some of this on the International Day of the Nurse.

The leadership role that each member played nationally, regionally, and within our own facilities cannot be understated. Many phrases were coined during this time. Our focus was on 'doing the right thing not, necessarily being right.' This resonated with Greenhalgh (2020) recognising that in the face of a pandemic the search for perfect evidence may be the enemy of public good. NLG never had a sense of panic, we supported each other and never judged those who had outbreaks. Knowing the precarious nature of what was occurring, professional support and empathy with those providers was unconditional. Relationships, professional respect, and evidence-based practice have proved critical in the ARC COVID-19 response. Ongoing engagement continues as we worked to advocate for early vaccination, have vaccination mandates, and the current urgent need for boosters for our vulnerable population and workforce. N95 fit testing is high on NLG's radar as is the workforce crisis. The value of the strong leadership and the NLG ARC nursing voice 'came of age' during 2020 and we are continuing to build on these gains.

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Reflection / Huritau

Answering the call: Academic nurse educators returning to practice on the eve of COVID-19

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Abstract

Prior to Aotearoa New Zealand's first COVID-19 related death there was an urgent regional need for frontline prepared registered nurses with highly specialised skills. In these exceptional circumstances nursing academics can provide a workforce reservoir to meet this exigent need. In the early stages of pandemic response planning, a district health board sought support from a local provider of nurse education, asking for nurse academics who were willing to return to practice. Learnings highlighted the value of academic staff having clinical currency allowing them to meet moral and professional responsibilities. Furthermore, it is evident that a collaborative relationship between education and healthcare providers can allow access to frontline prepared, highly skilled registered nurses to be called upon in a time of need.

Keywords: COVID-19, lecturer-practitioner, nursing, return to practice

Introduction

The call to return to clinical practice came during the first week of the 2020 nation-wide lockdown, where several registered nurses were placed in isolation after potential exposure to COVID-19. Our personal experiences as academic nurse educators returning to specialised clinical practice under extraordinary circumstances provided an opportunity for reflection.

Reflection is a meaningful tool used in nursing to actively engage in a process of analysis and evaluation to inform change for future practice (Bulman & Schutz, 2013). Borton's model of reflection uses three questions *What? So What? and Now What?* to assist in the systematic deconstruction of experiences (Borton, 1970; Williams et al., 2012). The first question *What?* allows practitioners to consider what has happened during the experience. The second question *So What?* gives meaning to the experience through evaluation as part of the transformative stage of learning. The final, and arguably most important, question *Now What?* provides an opportunity to use insights and understanding gained through the process to inform future practice (Skinner & Mitchell, 2016). Borton's (1970) framework has been selected as a guide to reflect on the personal, professional, and institutional response to an unexpected staffing crisis on the eve of COVID-19 in Aotearoa New Zealand.

What?

In March 2020, prior to Aotearoa New Zealand's first COVID-19 related death, there was an urgent regional need to identify frontline prepared registered nurses with specialty skills. In the early stages of pandemic response planning, a district health board sought support from a local provider of nursing education, asking for full-time nurse academics who were willing to return to practice if, or when, required. Nursing management of invasive mechanical ventilation was high priority in the event of rising COVID-19 cases (Gilroy, 2020). Co-location of a DHB and nursing educational institute allowed for greater visibility, and ease of access for the DHB to identify clinically competent registered nurses with critical care experience. The call to return to practice for both of us, as nursing lecturers, came earlier than

anticipated. It was sudden and time critical due to staff in a regional hospital being required to isolate, following potential exposure to an active COVID-19 case (West Coast District Health Board (DHB), 2020). This left the hospital significantly understaffed and in need of urgent clinical support. Less than 48 hours after receiving the call, lesson plans were swapped for stethoscopes and scrubs.

So What?

The decision to 'answer the call' was borne out of a commitment to nursing that necessitates registered nurses act as moral agents in their provision of care (Water et al., 2017). Such a commitment was considered by us to be applicable irrespective of an educational or clinical setting. A principle concern was one of personal safety and the potential impact on whānau (family). At this time the reality of COVID-19 in the healthcare setting had only been portrayed through international media reports (BBC, 2020; Regencia et al., 2020). Documented deaths included not only those of patients, but also that of frontline healthcare staff worldwide (Kavanagh et al., 2020; Keles et al., 2021).

While personal confidence in clinical capability and healthcare infrastructure in Aotearoa New Zealand was high, apprehension about an unfamiliar work environment existed. The greatest concern stemmed from the impact on personal life and the length of separation from family and dependents. Whānau were worried about potential exposure to the virus and subsequent transmission into the family home. This appeared to be consistent with experiences reported internationally from frontline nurses caring for patients affected by COVID-19 (Catania et al., 2021; Galehdar et al., 2020; Shen et al., 2020). It was important to acknowledge such anxiety and fear, and fortunately there was an understanding of the moral and professional responsibility required to assist in a time of crisis.

The relationship that existed between the DHB and education provider ensured that this professional obligation to the wider community could be fulfilled (Carbery, 2019). Due to the pressing circumstances, an immediate decision was made by the chief executive and acting head of department to facilitate our release into practice. The logistics of redeployment from an educational to a clinical setting were only realised en route to the regional hospital. There were no existing systems in place to facilitate a reassignment of this nature. In this extraordinary time the usual employment processes were bypassed in favour of an arrangement that reflected a loan of us, as lecturers, to the DHB. Subsequently, it was agreed that a salary would continue to be paid by the educational institute and remuneration would be sought from the DHB at a later date. Trust in the existing relationship between the educational and clinical providers permitted a seamless transition to practice and allowed the focus to be on the job at hand.

Arrival at the hospital was met with a sense of profound gratitude from staff for the willingness to respond to clinical need which included working in the critical care unit that same evening. There was recognition and celebration of solidarity, unification in a time of crisis and teamwork, which embodies the key values of nursing pioneered by Florence Nightingale (Phillips & Catrambone, 2020). Nursing Council of New Zealand (2012) states that a fundamental requirement of professional nursing relationships and ethical conduct is collegial respect. This was upheld by a willingness to fill the roster gaps and provide a level of flexibility that facilitated existing staff their rostered time off.

Now What?

It is our opinion that in exceptional circumstances nursing academics can provide a workforce reservoir to support existing clinical staff. Reflection on the experience suggests that a collaborative relationship between education and healthcare providers can allow access to frontline prepared, highly skilled registered nurses in a time of need. Learnings from this experience emphasise the value of academic staff having clinical currency, allowing them to meet moral and professional responsibilities in a pandemic or disaster response (Jackson et al., 2020). The implications extend further still. Recognition on the part of the educational institute to facilitate academics in retaining their clinical competence is not only beneficial for the credibility of the educational provider, but for the nursing profession and its many stakeholders (van Oostveen et al., 2017). We believe there to be considerable value in joint appointments between academia and clinical nursing. Yet the lack of institutional support to promote dual clinical and academic nursing roles would appear to be counterintuitive to upholding evidence-based practice (Gibson, 2019). It is our view

that the two roles are not mutually exclusive and given careful consideration could positively influence the quality of nursing education, healthcare delivery, and job satisfaction.

The opportunity to participate in Aotearoa New Zealand's COVID-19 nursing response allowed for a meaningful contribution to frontline nursing in unprecedented times. A moral premise of caring, and the trust that nurses have a commitment to do only good, underpins the foundation of nursing (International Council of Nurses, 2012; Water et al., 2017; New Zealand Nurses Organisation, 2019). Leaving family behind to step into the unknown on the eve of COVID-19 was motivated by the pull to clinical nursing and the urgent request for a highly specified skill set. The redeployment was, however, not entirely altruistic. A sense of value and pride was evoked in being able to practice the specialty skills that had been developed over many years of nursing in a critical care setting. The experience proved both exciting and daunting and was driven by the overriding feeling of being compelled to 'answer the call'.

Whaea taku toa I te toa takatahi taku toa takitini taki mano e

It's not by my own self but by that of the many

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Reflection / Huritau

Collaborative learning in the COVID-19 pandemic: A change to the delivery of undergraduate nursing education

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Abstract

At the time of the first lockdown in Aotearoa New Zealand, Bachelor of Nursing students were deemed non-essential workers and unable to complete clinical placements. This reflective piece describes an innovative solution to design meaningful learning activities for clinical placements in primary health care settings. With a focus on collaborative learning in a virtual team, student nurses participated in a project which focused on disaster nursing preparedness and management of the sequelae associated with a disaster, particularly the COVID-19 pandemic. Appropriate e-learning short courses contributed to student preparation for clinical practice acting as a substitute to clinical experience. The learning outcomes for student nurses included enhanced teamwork, demonstration of leadership, relevant learning that enabled completion of the Bachelor of Nursing programme with work readiness.

Keywords: COVID-19; e-learning; online learning; undergraduate nursing education

Introduction

The emergence of the COVID-19 global health pandemic saw public health and social measures disrupt and restrict student nurse learning. Clinical placements were not feasible in primary health care settings due to the changed nature of practice and the uncertainty of the progression of the pandemic. Using the self-reflective framework provided by Rolfe, Freshwater and Jasper (2001) of 'what? so what? and now what?' an innovative solution, which created a change to the delivery of undergraduate nursing education, is explored.

What?

Last year in 2020, Aotearoa New Zealand introduced a four-level alert system with the onset of the COVID-19 pandemic in January 2020 (Ministry of Health, [MOH], 2020a). By March 2020, a state of emergency and alert level four lockdown had been applied (MOH, 2020a). At that time, the Chief Nursing Officer advised nurse leaders that student safety was paramount and that nursing students should not attend clinical placement as they were deemed non-essential workers (MOH, 2020b). In response, Bachelor of Nursing (BN) academic staff were compelled to pivot and rethink delivery of the year three clinical course 'Family, Whānau, and Community nursing' (Ara Institute of Canterbury, 2021). Within this new environment, effective preceptorship, registered nurse oversight, alignment to learning objectives, and competency assessments in clinical settings and environments were not possible. Prioritising year three nursing students' learning and progression in the BN programme was necessary to ensure their entry into the registered nurse workforce in 2021. Consequently, a learning experience that could mirror an authentic primary health care and community nursing clinical experience was designed and implemented with the Nursing Council of New Zealand approval.

So what?

Teamwork within the experienced academic staff team was imperative to design and develop an authentic and relevant clinically based disaster preparedness project for nursing students. Prior

research informed the content in supporting flexibility of course delivery, acknowledging the sequelae of crisis events, and informing the actual and potential roles of nursing in disaster events (Richardson et al., 2015). The project included a focus on collaborative learning within a team and provided an opportunity for nursing students to recognise their individual strengths and challenges within their own current skill set (Barton et al., 2018). Learning to work together within a virtual team also highlighted various interpersonal dynamics and nursing students observed and reflected on how their behaviours influenced their own individual performance, including leadership roles and responsibilities (Logan, 2016). Students participated in learning and teaching activities through self-reflection, virtual and digital platforms. Disaster nursing preparedness, and management of the sequelae associated with a disaster, were included in the project, with a focus on the COVID-19 pandemic. Appropriate e-learning short courses were included such as the use of personal protective equipment, safe vaccine storage and transportation, and provisional vaccinator foundation knowledge to prepare the students to return to the clinical setting. The project was supported by the clinical teaching team, including the authors.

Now what?

Upon reflection, it was recognised that the academic team's motivation, deep understanding of nursing pedagogy, experience as registered nurses, along with positivity and teamwork were key drivers to enable timely continuation of nursing students' learning within this course. The outcomes of this learning for the students included enhanced teamwork, demonstration of leadership, relevant and applicable knowledge with an emphasis on work readiness as future registered nurses. The implication for nursing education is that an appropriate learning experience can be substituted for a clinical learning experience in exceptional times and circumstances. Further outcomes have arisen through this project, which have included enhanced clinical skills, namely venepuncture, vaccination, and the unique opportunity for nursing students to gain clinical experiences at Managed Isolation Quarantine Facilities (MIQF). The MIQF multi-disciplinary team of police, military, nursing, and medical staff established a safe and supportive learning environment for nursing students through procedures and protocols. Indeed, the MIQF experience has led to employment for current graduates of the BN programme. "As we have seen throughout history, nurses are well able to think outside the box, and develop creative and innovative solutions to all manner of problems, conundrums and challenges" (Jackson et al., 2020, p. 2041).

Concluding thoughts

Nursing student project teams demonstrated innovation, realising the need for self-care in professional practice, enabling self-confidence in infection control principles, health education and the value of lifelong learning. Research is underway to capture the learning of nursing students and adaptability to change, including the experience of clinical placement in MIQF. Ongoing curriculum development will focus on innovative approaches to teaching and learning incorporating currency to nursing practice, disaster responsiveness, and workforce ready graduates.

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Nursing Praxis in Aotearoa New Zealand
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Reflection / Huritau

The gendered role of pastoral care within tertiary education institutions: An autoethnographic reflection during COVID-19

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Abstract

Emerging research highlights that the pandemic has exacerbated gendered inequities for academic women. These disparities prior to COVID-19 included a significant gender pay gap, and women channelled into administrative, teaching, and pastoral care roles that are not recognised with career advancement and remuneration compared to research routes much more readily facilitated for and by male colleagues. Using a collaborative auto-ethnographic approach we reflect on our experiences of emotional labour in supporting nursing students throughout the Covid-19 pandemic and the invisibility of this crucial work within academia. We noted that the patriarchal construction of academia remains present and highly visible to the detriment of many female career trajectories.

Keywords: academia; COVID-19; emotional labour; faculty; gendered division of labour; pastoral care; women

Background

Emerging research highlights that the pandemic has exacerbated gendered inequities for academic women. These disparities prior to COVID-19 included a significant gender pay gap, and women channelled into administrative, teaching, and pastoral care roles that are not recognised with career advancement and remuneration compared to research routes much more readily facilitated for and by male colleagues (Crabtree & Shiel, 2019). Despite small gains in women's paid employment and equity initiatives within academia, the ingrained rhetoric of gendered labour divisions is perpetuated within these institutions (O'Hagan et al, 2019; Yildirim & Eslen-Ziya, 2020). The patriarchal structure of tertiary education institutions, combined with the reduced agency of women academics, creates a duplicitous situation; academic marketing draws attention to the availability of quality teaching and pastoral care yet those who provide this emotionally laborious work are undervalued (Rickett & Morris, 2020). This institutional reproduction of traditional, gendered power hierarchies reflects a subtle symbolic violence towards women academics through expectations placed on them to provide (unrewarded) pastoral care to students (Bourdieu, 2001). We argue that analysis of this demand and its gendered implications need urgent attention as the requirement for tertiary institutions to provide pastoral care has recently been legislated (Education (Pastoral Care) Amendment Act, 2019). We consider that an ethic of care is fundamental to nursing, including role-modelling caring in relationships with colleagues and our students. Yet valuing caring and requirement to care create an irreconcilable tension for women in academia; prioritising caring risks equitable career advancement and impacts (rewarded) research aspirations and income (Malisch et al., 2020).

Gendered narratives fuel entrenched beliefs that it is a woman's place to be a caregiver both professionally and domestically, thus continuing the 'third shift' rhetoric accorded to women who seek a career beyond domesticity (Gerstel, 2000). Yet the provision of pastoral care in tertiary education is a mainstay underpinning wellbeing and retention of students (Banks et al., 2012). Evidence of the dual negative

burden of emotional labour on women academics was heightened during the first COVID-19 pandemic level four lockdown in early 2020 in Aotearoa New Zealand. Specifically, this entrenched expectation that women will provide emotional support to students as part of service roles (Angervall, 2018, Ryan et al., 2021) impacts women academics' ability to actively participate in research activities and be research productive, thus reducing the likelihood of career advancement, while simultaneously enlarging their emotional burden through increased welfare provision.

Collaborative autoethnography

A collaborative autoethnographic (CAE) approach offered the authors, two mature-aged academics, an opportunity during the first wave of COVID-19 to pool our academic pastoral care experiences as data, collected through shared conversations (Chang et al., 2013). Our overlapping experiences of supporting unprepared nursing students to foster self-care skills, while expected to perform teaching and research duties and caring for our frail older parents, presented a rich tapestry of experiential data for reflection (Hernandez et al., 2017). Collaborative autoethnography, therefore, provided a relational functionality, positioning ourselves and our data as points for self-reflection on our place in the workforce and social world (Francis & Hester, 2012).

Reflection

The service aspect of our academic positions at the time of the COVID-19 pandemic in 2020 included substantial pastoral care oversight of students in our programme (undergraduate nursing students). Having only recently commenced these roles, the magnitude of the additional workload outran our job description for this supportive role while perpetuating the gendered division of academic labour. We are both in the 'sandwich generation;' with simultaneous roles as mother, teacher, caregiver, and pastoral carer, all of which can lead to emotional suffering (Brenna, 2021). We concur with Ryan et al., (2021, p. 587), that "female, feminist, and academic remain an uncomfortable fit," as caring is fundamental to societal and academic cohesion, and thriving during the pandemic, and yet is exploited (Angervall & Beach, 2020). Additionally, socially constructed ideals of feminine activity perpetuate the enduring hierarchy and inequality afforded to women within tertiary education institutions (Yildirim & Eslen-Ziya, 2020). This reflected our unrewarded reality, responding to exceptionally high levels of support requested by students due to their increased anxiety.

We addressed the newly identified wellbeing needs of our large cohort of nursing students through provision of mindfulness sessions and resilience training specifically tailored to the stressors of the pandemic lockdown, together with unrelenting online support. However, this burden of gendered labour resulted in substantial pressure in our positions of academic leadership, with our work largely going unnoticed (Babcock et al., 2018). This invisibility of 'women's work' in academia results in a negative portrayal of women's contributions to the scholarship environment when compared with the more tangible outputs of male counterparts. Bourdieu's (2001) concept of 'soft power' illuminates this normalised side-lining of women, deployed at an almost unconscious level as a means of retaining the status quo of patriarchal domination in tertiary education. Thus, it is unsurprising but frustrating that our experiences of burdensome emotional toil, and the unseen and invisible burden of pastoral care goes unrecognised on both personal and professional levels and supports our argument that nothing has really changed around the gendered construct of labour in decades, despite ongoing battles.

The double burden, however, of caring at work and caring at home, resulted in us working longer hours than we would usually, thus encroaching on our family time. These inroads are noted by numerous authors (see for example Andersen et al., 2020; Jessen & Waights, 2020; Yildirim & Eslen-Ziya, 2020). These scholars highlight that the impact of the pandemic on caregiving duties has been disproportionately weighted towards women, measurable in reduced research outputs that directly impact promotion. Furthermore, Andersen et al. (2020) confirmed our experiences highlighting that such caregiving duties negatively impacted research productivity for women. These findings align with our experiences of caregiving both professionally and domestically, with nursing students' needs and those of our families overriding our efforts to remain competitive in the male dominant research paradigms of academic practice.

Through these constant interactions with our nursing students we noted that they too were often

experiencing similar situations. We recognised a perpetuation of the social constructs of masculinity and femininity (Connell, 2002; West & Zimmerman, 1987) and increased gendered division of labour for nursing students during the pandemic (Waddell et al., 2021), thus continuing the structural gendered inequalities faced by women across multiple levels of academic reference. This multiple-role conflict (Forsyth et al., 2019) means women students negotiate study time alongside childcare arrangements which, with the added effects of the pandemic and lockdown on meeting children's needs, immediately disadvantages the women of any cohort. Thus, in a similar situation to ourselves, students often felt guilty about spending time away from the family to pursue study, whereas we were guilt ridden in having to support the very same students while also tending to the needs of our immediate family members and elders. The duplicity of this situation is not lost on us. As did Utoft (2020), we too "take issue with the premise that our productivity is the golden standard against which we and our worth should be measured while we are living through a global crisis" (p. 778).

Conclusion

The image painted by our experiences is one whereby our emotional labour, and the ongoing gendered nature of caring remains invisible to all but those immediately engaged in giving or receiving of care. Within the patriarchal construction of academia, our service is heavily relied upon to support the success of nursing students, but is simultaneously overlooked when we, as women academics, struggle to equal the scholarly outputs of our male counterparts. As such, our experiences uphold the ongoing reality of how the construct of gendered labour remains entrenched in everyday interactions (Waddell, 2021; West & Zimmerman, 1987) within academia, thus rendering the burden of emotional labour exhausting, invisible and not valued against the tangible productivity of male academics. Our experiences, therefore, suggest that the 'soft' power of symbolic violence (Bourdieu, 2001) remains at play within academia to the detriment of women who yield to the gendered provision of care.

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Original Article / He Rangahau Motuhake

Frontline nurses' sensemaking during the initial phase of the COVID-19 pandemic in 2020 Aotearoa New Zealand

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Abstract

The aim of this study was to identify the COVID-19 pandemic impacts on nurses' sensemaking and explore resilience and mitigation strategies nurses adopted to sustain their wellbeing. Frontline clinical nurses are an essential population within the health workforce. Although they are educated to deal with the many challenges working in health presents, this pandemic has created new stressors and vulnerabilities, placing strain on their wellbeing. This article reports on the qualitative data from a national mixed methodology study undertaken between October and December 2020. Twenty-nine interviews were conducted remotely using Zoom and telephone with nurses in a wide range of clinical front-line roles. Data were analysed thematically drawing from the theoretical lens of sensemaking, and related concept of liminality. Findings identified that early in the pandemic, participants who were frontline nurses prioritised patient care while negotiating shifting uncertainties, fear, under-resourcing, and variable leadership. They watched the unfolding international crisis and anticipated that we, in Aotearoa New Zealand, faced a similar disaster. Amidst significant stressors, they endured separation from their families while acting as substitute family for patients and residents isolated from whānau. Six themes were identified: liminality; teamwork and leadership; relational dynamics; health and safety precarity; care ethics; and heroes and pariahs. The study highlights that organisational culture, communication, and clinical leadership either fractured or strengthened nurses' professional commitment.

Keywords / Ngā kupu matua: altruism / te whakaaro atawhai i ētahi atu; COVID-19; frontline nurses / ngā tapuhi i te aroākapa o ngā mahi; leadership / te mahi arataki; liminality / panonitanga o te āhua tangata; sensemaking / te mātai āhuatanga; wellbeing / hauora

Te Reo Māori translation

Te mātai āhuatanga a ngā tapuhi i te aroākapa o ngā mahi āwhina tūroro i ngā marama tuatahi o te mate urutā o Covid-19 i 2020 i Aotearoa New Zealand

Ngā ariā matua

Ko te whāinga ia o tēnei mātainga tūāhua he tautuhi i te pānga o te urutā o COVID-19 ki te mātainga āhuatanga a ngā tapuhi, he tūhura hoki i ngā rautaki tū pakari, whakangāwari hoki a ngā tapuhi kia mau tonu tō rātou hauora. He taupori taketake ngā tapuhi i te aroākapa o ngā mahi āwhina tūroro i roto i te kāhui kaimahi hauora. Ahakoa kua ākona rātou mō ngā tini wero ka tūponotia e te hunga mahi i te ao hauora, i tēnei o ngā urutā kua puta ake ētahi atu pēhitanga, whakaraeraetanga hoki, ā, hei whakataumaha ēnei āhua i tō rātou hauora. Tā tēnei tuhinga he tuku pūrongo mō ngā raraunga inekounga mai i tētahi rangahau tikanga-maha i kawea i waenga i ngā marama o Whiringa ā-

nuku/Oketopa me Hakihea/Tīhema 2020. Rua tekau mā iwa ngā tapuhi i kawea mā te whakamahi i Zoom me te waea hei kōrero ki ngā tapuhi i ngā tūnga āwhina tūroro i te aroākapa o ngā mahi. I āta tātaritia ngā raraunga i runga i ngā kaupapa, me te whakamahi i te arotahi ariā o te mātai āhuatanga, me te ariā tūtata o te panonitanga taumata tangata. I tautuhitia i roto i ngā kitenga ko te hunga whai wāhi mai i ngā marama tuatahi o te urutā ko te tapuhi whai wāhi ki te uiuinga i whakaraupapa i te tiaki tūroro hei whāinga matua, me te kawe i ngā whakaaro rangirua, i te mataku, i te kore rauemi, me te mahi hautū tāpokopoko i ētahi wā. I mātaki rātou ki ngā raruraru nui i te ao katoa, me te whakaaro tērā pea ka pā he aituā nui pērā ki a tātou i Aotearoa. I roto i ngā āhuatanga whakataimaha nui, i kawea e rātou te taumaha o te noho wehe i te whānau, me te noho hei whānau kairīwhi mō ngā tūroro me te hunga noho taratahi i ō rātou whānau. E ono ngā kaupapa i tautohutia: ko te panonitangata o te āhua tangata; te mahi ā-tira me te mahi arataki; ngā pananga hononga; te uaua o te hauora me te haumaru; ngā tikanga tiaki matatika; ko ngā tuahangata me ngā tāngata hē. Kei tēnei rangahau ka kitea nā te ahurea o te whakahaere, te whakawhiti kōrero, me ngā arataki mō te mahi āwhina tūroro, ka heke rawa rānei, ka piki rānei te whakamaunga ngaio o ngā tapuhi.

Background

The advent of COVID-19 rapidly gathered momentum as the global transmission of the coronavirus SARS-COV-2 on populations began to display evidence of significant morbidity and mortality. The unforeseen acceleration particularly required frontline nursing and medical staff to confront with haste the reality of personal risk and life disruption. The international accolades for Aotearoa New Zealand's response (Jefferies et al., 2020) belies the impact on our workforce. A New Zealand Nurses Organisation spokesperson expressed concern at nursing's exclusion from expert advisory groups and stated, "…health-care incidents are reviewed through a patient-centric lens, rather than a health and safety framework focused on risk and harm to workers" (Weston, 2020, p. 34). Aotearoa New Zealand entered the pandemic with a neoliberal health system eroded by successive governments (Barnett & Bagshaw, 2020). Ministry of Health assurances of adequate personal protective equipment did not accord with the realities for many health professionals (McGuinness Institute, 2020).

The first case of COVID-19 was diagnosed in Aotearoa New Zealand on 28 February 2020. By 21 March the government announced a four-tiered alert level system and by 25 March the whole country was moved to the highest alert level four, with everyone mandated to go into isolation 'bubbles' – small groups domiciled together. All except essential services closed and people were required to stay in their residential area, only leaving home to shop and exercise outdoors. International borders closed with few exceptions apart from residents and citizens. On 29 March the first COVID-19 related death occurred. By 8 June there were no community cases of COVID-19, although there were further infections due to border incursions, resulting in additional lockdowns in 2020 (New Zealand Government, n.d.). At the time data was collected for this study, between October and December 2020, Aotearoa New Zealand was at Alert level 1, with people able to move freely within the country. By the end of December 2020 there had been 2162 cases and 25 deaths (World Health Organization, n.d.). These cases are people, linked to families and wider networks, the lives of whom have impacted many of our approximately 58,000 nurses.

Conceptual frameworks

The pandemic thus far has added considerable pressure to nurses' professional and personal lives, impacting their wellbeing (Labrague & De Los Santos, 2020; Rosser et al., 2020; Shanafelt et al., 2020). To analyse disruptions to nurses' wellbeing and their resilience and mitigation strategies, we applied the overarching theoretical concept of sensemaking (Weick at al., 2005), and the related concept of liminality (Van Gennep, 1960).

The pandemic has created a complex and fastmoving context, requiring us to continuously reframe and make sense of new and emerging realities. Such "[e]xplicit efforts at sensemaking tend to occur when the current state of the world is perceived to be different from the expected state of the world" (Weick et al., 2005, p.409). Our usual actions and activities are disrupted and we are required to adapt in a way that is often beyond our existing repertoire and knowledge. Sensemaking requires us to relate to the unknown through experimenting with alternative actions, and then reviewing and revising these

actions as we experiment with what works in a shifting reality (Ancona, 2012).

Noticing, meaning-making, and action are intertwined aspects of sensemaking (Weick at al., 2005). An illustration of noticing is that during this pandemic, people, including nurses, have been overwhelmed with huge volumes of information, at times making it hard to recognise and prioritise key messages. Cognitive exhaustion may impede people's ability to keep up to date with shifting information (Arnetz et a., 2021). Throughout the pandemic thus far we have seen vastly divergent meaning-making about COVID-19, between individuals, communities, and nations. This aspect of sensemaking has impacted health professionals in wide-ranging ways. For example, Morgan (2020) argues that in the UK context, the heroic metaphor for frontline health workers is used to draw attention away from political failings that resulted in thousands of deaths. Berger (2021) concurs, positing that the heroic metaphor applied to healthcare workers has an underbelly of public and political expectation that these professionals will put themselves in harm's way, similar to the expectations of service personnel. People make sense of their world through action, and yet action has been severely curtailed through lockdowns and numerous measures to curtail viral spread. Aquilia et al. (2020) highlight numerous ways clinical nurse leaders supported their teams to adapt to novel circumstances. These adaptations were made by nurses 'on the floor' as more senior managerial leaders were not physically present to participate in 'on the spot' decision-making.

Liminality, a concept drawn from anthropology, provides a lens for understanding transitions. Liminality is a three-part process involving separation from the known; a liminal period that is a destabilising and disorientating threshold where people's status is ambiguous socially and structurally; and ultimately but not always, re-assimilation into a 'new normal' (Van Gennep, 1960). This non-linear process is affected by extrinsic and intrinsic factors. The concept is widely used in health research to consider disruptive events, including COVID-19 (see for example Awdish, 2021; Jackman et al., 2020; Wayland, 2021). In a period of liminality, the sense of communitas – a shared identity – can provide solidarity and foster resilience.

This study aimed to identify the COVID-19 pandemic impacts on nurses' wellbeing and to explore resilience and mitigation strategies nurses adopted to sustain their wellbeing. Although from an international perspective Aotearoa New Zealand was applauded early in the pandemic as an exemplar of an elimination strategy (Robert, 2020), it is essential to capture the significant cognitive and emotional labour for frontline nurses as they adapted to this early phase of the pandemic.

Method

These qualitative data are part of a larger dataset drawn from a national mixed methodology study in Aotearoa New Zealand. The qualitative analysis was informed by a social constructionist approach, to investigate the experiential dimensions of nurses' lives. The social constructionist paradigm focuses on how meanings are forged, sustained, negotiated, and dismantled (Burr, 2015).

Participants

Respondents in the online survey distributed by the New Zealand Nurses Organisation were invited to signal their interest in a follow-up qualitative interview via Zoom, resulting in 29 participants. The study sample comprised of 28 registered nurses and one midwife. Participant ethnicities were two Māori, one Korean, one Taiwanese, one Canadian, one Scandinavian, two British, two Dutch, and 19 Pākehā (New Zealand European). Participants ranged in ages from mid-twenties to late sixties, working throughout the country and in a wide range of settings from primary to tertiary level care and managed isolation facilities.

Data collection

Potential participants were emailed, with an accompanying information sheet, to introduce the interviewer, organise a telephone call to address any queries, and arrange an interview time. Semi-structured interviews were undertaken. Examples of interview prompts are as follows: describe a situation that is significant for you that reflects how the COVID-19 pandemic has affected 1) relationships with colleagues and 2) relationships in your personal life; describe a situation that in some way reflects a shift or heightened awareness of your perspective, values or beliefs because of nursing through the COVID-19 pandemic; what were some of the challenges you faced keeping yourself and your whānau (family) as healthy and safe as possible?

Data analysis

Data were analysed using Braun and Clarke's (2006) thematic analysis, which is compatible with social constructionist approaches. This process involves identification, analysis, and representation of themes. The process involved both inductive and deductive analysis as analysis was driven by data and theory (Fereday & Muir-Cochrane, 2006). Thematic analysis requires meticulous and equal attention to all data initially. The first three authors familiarised themselves with the data separately and then collaboratively, coding initial interesting features in the dataset, collating these into potential themes and generating a thematic map, culminating in the selected themes.

Ethical considerations

The study was approved by Massey University Human Ethics Committee. Participation was voluntary. Participants were informed about the study; respect for confidentiality and anonymity were discussed; and verbal consent was obtained before interviews. The online interviews were conducted with adherence to international recommendations (Lobe at al., 2020). The digital interview recordings were transcribed under the auspices of a confidentiality agreement.

Findings

Six themes were identified from the data: *liminality*: participants were rapidly thrown into an uncertain space where the known practice patterns were uprooted; *teamwork and leadership*: participants' navigated fragmented leadership; *relational dynamics*: participants and their families made sacrifices in their personal lives; *health and safety precarity:* participants managed gaps in protective gear and safety protocols; *care ethics:* participants endured the moral distress of disrupted care practices; *heroes and pariahs:* participants weathered the troubled identity of being frontline workers.

Liminality

The advent of COVID-19 rapidly gathered momentum internationally with evidence of significant mortality, which demanded a swift response. The following quote highlights what was evident across the dataset; nurses' shift from being somewhat oblivious to world events to being hyper-cognisant of imminent change:

> *I hadn't been taking too much notice of what was going on, I'd realised, and suddenly there was a pandemic. Gosh, I suddenly realised that there hadn't been a pandemic since 1918. There was that sudden sort of awareness. I can get quite anxious, I sort of had to go away and have a little wee cry and talk to the infection control nurse, because suddenly New Zealand was going to be infected by me. I'd kind of catastrophised that.* [#14, district nurse seconded for COVID-19 role]

Frontline nurses described their preparedness and then waiting in emptied-out hospitals for the virus to arrive:

> *You were constantly trying to get your head around what's going to happen, and what's potentially going to happen. Everyone was a little bit anxious. I wasn't particularly freaking out. I suppose it was like a wary… you're just waiting for the tidal wave to happen. There was kind of this nervous apprehension – I think between us and ED [emergency department]. Those first days, after we went into level four, for about I think a week and a half to ten days, it was just so eerily quiet. We just weren't getting any patients in at all.* [#9, high dependency unit]

Participants recalled the strong emotions they and all those around them experienced as they tried to make sense of an uncertain future:

> *There was one overriding kind of feeling and that was anxiety. No matter what role we were playing, whether it was staff, the managers of staff, whether it was residents, whether it was their families. Everybody was anxious. So staff, they were anxious on probably a few fronts. They were anxious about the thought that they might bring the virus with them to work unwittingly. They were also anxious that they might pick it up at work and take it home to their families. So a lot of them, including myself, we had to curtail our activities at that stage.* [#17, residential care manager]

The experience of liminality – an in between space where old patterns do not work, but there is no clear path forward – was evident as participants described their surprise at how ill-prepared their services were for a pandemic:

> *…organisational lack of readiness: I just assumed that there would be a pandemic plan that would be actioned, but it felt like there wasn't anything on paper, like no*

> *guide…particularly in this part of the world after SARS a few years ago, I felt that somewhere they would dust off a pandemic plan that they had written up and enact it. Maybe they did, but it didn't feel like that happened, it's kind of just winging it really.* [#20, seconded to COVID response team]

Participants all spoke of the often-radical reorganisation of their social networks and the new vocabulary that accompanied the pandemic:

> *…the new language; the bubble was a very new term for all of us too even as health professionals. Like, if I said to you, "we're gonna be talking about a bubble in 18 months," you'd be thinking, "well what the hell's that"? For me in the hospital that became my big bubble.* [#1, charge nurse]

Although anxiety was a feature of this liminal phase for many participants, a minority of participants felt well prepared, from both experience and temperament, to adapt with resilience to the possible impending disaster:

> *I didn't get into nursing to run at the first sign of a problem, and we know that things happen. Like I worked through the earthquakes in Christchurch, and we had a trauma centre set up at the hospital that I worked at and I was a part of that. It was very traumatic, but it also set me up. It showed me what I did made a difference.* [#29, residential care]

Across the data-set participants spoke of noticing the differing contexts for colleagues that manifested in wide-ranging responses to the pandemic:

> *I didn't even find it that hard to be honest. The next thing I'd like to do is disaster nursing …. I didn't find it that mentally or emotionally challenging. But then, we didn't have people dying daily of COVID like they've got overseas. I think that would be such a different kettle of fish. It [the pandemic] brought us [emergency department team] together and it also highlighted which nurses were good at working with constant change and which nurses struggled. It was an eye-opener into people's personalities actually.* [#27, high dependency unit]

The data highlighted that participants experienced the rapid disruption of life as they had known it, with accompanying anxiety affecting every area of their lives. This distress was more evident for participants when they perceived they were in an ill-prepared workplace with poor communication, and when they considered their family members and patients were particularly vulnerable; issues explored below. Few participants recounted escaping distress.

Teamwork and leadership

Participants' recollections of the initial lockdowns were largely dependent on the extent to which they experienced positive leadership and teamwork. Through this uncertainty, nurses looked to managers and leaders for both direction and support as they navigated trying to make sense of the ever-shifting environment. Clinical, 'on the ground' leadership had a 'make or break' impact on teams. Participants expressed that this leadership had most impact as there was a strong sense of being dislocated from senior leaders who were physically absent; a point emphasised by the following participant:

> *We had to look after each other because there was nobody else to do it. The managers led us but they weren't in there, if you know what I mean. They were behind closed doors. The managers that came in, they didn't go into the rooms. They were sort of out in the foyer or on the computer; even though they verbally were absolutely fantastic…. Unless you were actually on the floor you didn't understand…. We were initially told how to dress and use our PPE gear and we nurses took it a step further…. It was a unique situation whereby the [frontline] nurses in a lot of ways, we were the ones that led it, because even though we were told what to do, there's nobody going to be coming in and slapping our hands because they didn't want to be in there in case they caught anything. It was us nurses that backed each other up.* [#10, seconded to work in COVID area]

Participants repeatedly highlighted the gaps between remote directives and the clinical capacity to implement mandates:

> *Information overload - I think there was too much information slammed at us – way too much information. You were just inundated. You had updates from your own managers. You had updates from the hospital, managers, and communications. You came back after a couple of days and it was just update, update, update. In the end I got to the point where I*

> *was just reading the last one. You can't constantly keep reading all that information.* [#9, high dependency unit]

Typically, participants had a sense of 'you had to be there' to have an appreciation of the clinical challenges and requirements, and directives were not necessarily fit-for-purpose. A clinical leader in residential care spoke of her positive evaluation of her role in the stabilising of her workforce and resident group, despite the sense of feeling under-valued by senior managers:

> *At a facility level just within our group, what did it mean to be the [lead] RN? How did I feel? At times, frustration. I think I led a good team. I think our team was led well because they were happy, the residents were happy, the care staff on the whole were happy. You got the old 'speed-wobble' every now and then, but I think we came through really well. So, at facility level, I would just say respected at facility level. From a management level, we had no value really.* [#18, residential care clinical manager]

Participants spoke of initiatives either they or their clinical leaders had taken to enhance teamwork during the lockdown periods. A participant in primary healthcare described how the simple measure of closing the clinic and eating communally increased morale:

> *It meant that then we could actually have our lunch breaks together and then we would all sit and talk. That never happens. We're always just talking in the hallway. It's just that awful type of system that's very westernised so you're talking on the run. But then because of COVID we were then able to properly sit with each other and eat. It's just a better way to be. It reduces stress because you see your colleagues in a relaxed state and then you connect a lot more.* [#7, primary healthcare]

A clinical leader found that colleagues meeting together regularly enhanced a sense of collegiality and support:

> *We had regular huddles a couple of times during the day just to touch base with the charge nurses as a group, and it was all questions that would come up. In the beginning a lot of it was around pay, you know, nurses, we were sending nurses home on COVID leave; vulnerable nurses, immuno-suppressed, waiting on swabs; and it was so many questions that we just didn't know. So that was a good strategy for us.* [#1, charge nurse]

Across the dataset participants highlighted that their clinical experience during the initial lockdowns was positive when there was a strong sense of local clinical leadership, even if there was a perception of dislocation between clinical leaders and the remote leadership from more senior colleagues, district health boards and government.

Relational dynamics

Participants emphasised the impact of being a frontline worker on relationships with immediate family members; managing their distress and sometimes knowing they were going against families' wishes was commonplace:

> *My daughter was almost crying. She said, "You're so excited to get into the real dangerous part. Keep inside. Why should you go there?" My husband was quite upset too, "Why you, why you?" I explained to him I have to do it as a nurse otherwise my pride will go away so I have to go and I'll keep myself safe using PPE so I'll make sure of my safety as well as God protecting me. So my husband accepted and my daughter accepted all things as they know my passion as a nurse.* [#21, senior surgical nurse]

The dataset showed the sacrifices and lengths frontline nurses went to in their personal lives, to keep *w*hānau safe:

> *I had already decided that I would self-isolate. We have a spare room. Like a lot of us nurses did, we had a routine; like if we couldn't shower at work, we would get naked in the shed. We just had all these steps into the house to try and alleviate my own* whānau's *stress about it all. They were pretty on edge knowing that I could potentially bring something home.* [#22, surgical ward]

Participants who were in coupled relationships described planning how to decrease risk to each other and their communities by reducing their contact with each other:

> *A week or two before things got really bad, she [charge nurse] said, "if we need people to go and work with COVID patients you will be," well, her words were, "the first cab off the rank." How did I feel? And I said, "no problem."*

> *From that day on my husband [also an essential worker] and I slept in separate bedrooms. We had separate bathrooms. Made sure that if I did have to work in that environment it minimised the risk of passing anything on and I limited contact with my children and my grandchildren from that time on. I was preparing myself before we actually had to go and do anything really.* [#29, residential care]

Participants' commitment to their community meant they purposefully kept their bubble as small as possible, and this undertaking meant they bore the effects of psychological isolation:

> *I think one of the big ones [challenges] was definitely the lack of support and isolation I felt at the end of a shift. My husband still worked. He was working with [essential service], so he was out during the day until early evening. I'd come home from a particularly difficult shift, and I was on my own…. I felt like I couldn't reach out to anybody.* [#23, general surgery]

Participants included those working in residential care who chose to live onsite through the initial lockdown, with the sacrifices this entailed:

> *It was hard emotionally because I couldn't see my children and my granddaughters, but because we were a small facility with only two RNs and one was a clinical manager and myself, we knew we had to step up and keep ourselves 100 percent isolated because if anything happened, we were on our own. We both knew that going in. I was on my own. I actually was living onsite during that time.* [#18, residential care clinical manager]

The dataset demonstrated nurses' altruism during the first wave of the pandemic in Aotearoa, which often meant curtailing their own needs for intimacy and support to increase safety for their networks.

Health and safety precarity

Participants' accounts varied widely in terms of their sense of personal safety in the workplace. There was no uniformity in participants' access to, and education about the use of protective gear. Participants also had diverse experiences around organisational leadership pertaining to the wellbeing and comfort of frontline staff. Participants expressed surprise at what appeared to be ad hoc consistencies:

> *I felt, at times, that New Zealand is so small that there could have been a more collective approach to it, rather than it being left to the individual. You sort of got the impression it was left to individual DHBs, but then actually within our DHB, at times it felt as if it was just left to individual charge nurses to work out what was the best thing to do; and we hadn't done this before.* [#19, charge nurse]

Participants' access to PPE impacted in the level of fear they spoke of, especially where nurses believed PPE was withheld where it was needed:

> *I worked for the [initial] lockdown with district nurses, that was probably the scariest time because there was nothing really set up for us; we weren't wearing PPE, we were told we didn't need to wear PPE.* [#14, district nurse]

For virtually all participants, the shift from universal precautions to the rigours of donning and doffing PPE was a major learning experience. Few participants had colleagues who were experienced in an epidemic context:

> *We had a nurse that nursed through Ebola, so she brought her skills initially to show us the safest way to don and doff all your PPE gear and working in that environment. That was really helpful initially, otherwise it was like the blind leading the blind.* [#10, staff nurse dedicated COVID ward]

The requirement to don before attending to patients was an extraordinary practice for most nurses early in the pandemic. One participant spoke of an incident where staff prioritised immediate patient care over staff safety:

> *This particular lady collapsed on the toilet. She was very sick. Three of us had to rush in and get her off the toilet. She vomited on us. In the best scenario that's no good anyway. You have to do that. You can't leave her to die sitting on a toilet. If we got sick then so be it…. There was no PPE set up in the hallway…. I think we just all jumped in and did what we had to do in that scenario, but we should have all been wearing PPE.* [#16, residential care]

Leadership within practice setting was essential for staff safety:

> *I'm the nurse manager. I work very closely with the practice manager and also the owners of the practice. The owner said, "If*

> *there is any concern that we do not have enough PPE, or do not have PPE, we will not be seeing any patients at all." They said safety was the number one thing. If we didn't have the PPE we would shut. I think that was crucial in making myself and also my colleagues feel comfortable in being able to provide the care to the patients that we needed; knowing that actually, if we don't have what we need to protect ourselves, our bosses back us 100 percent that we will shut. So, that was really good.* [#8, primary healthcare clinical manager]

Frontline nurses' morale and teamwork were strengthened when nurses perceived organisational accountability for staff safety:

> *[Name of] DHB did a super job of making sure we had showers. After every shift we'd shower and change into clothes and if we worked in our COVID dirty ED, we wore hospital scrubs that they provided so we didn't have to take home uniforms.* [#25, emergency department]

However, some participants considered that the fundamentals of a safe working environment were not provided. The following example illustrates the absence of organisational preparedness for staff wellbeing:

> *The testing that we were doing in the community, and we tested five days of the week for like six weeks solid, and we were out in the community from nine till two every day. We were in rural locations where there was no toilet, and there was no shop; so if you didn't have food or water you starved and you just went thirsty. But the hardest part was not having a toilet. We were peeing behind trees and trying to pee in bushes. Two of our nurses got urinary tract infections because of holding on for so long, and not being able to pee when you need to type of thing. So, really, that was not good for us.* [#24, primary healthcare]

Participants repeatedly highlighted the uncertainty around supplies of PPE and hand sanitiser, which led them to working subversively to ensure adequate supplies to work with their vulnerable communities. The following participant, who worked in a primary care setting, justified her strategies, aimed to protect Māori and Pacific patients, who made up much of their patient group:

> *I'll be honest, I did do a little bit of squirrelling and I did tell some lies when I did fill out the online form, because I felt I needed to have some backup supplies, so that we continued to be able to provide the service to our vulnerable patients; because if we run out, that's it for our patients and we have to send them elsewhere, and you don't always get that continuity of care.* [#8, primary healthcare clinical manager]

Supply precarity and variable PPE education impacted participants' sense of safety and morale. Nurses made supply decisions at a local level as national supply initiatives were flawed.

Care ethics

Participants in residential and acute care settings described their distress at people being alone through illness and dying:

> *We still had all the other stuff going on; heart attacks; strokes; acute abdomens. I must admit our numbers went down initially but the people that were coming in were exceptionally sick; not necessarily with COVID but other things and they were unknown [COVID status]. There was a lot of distress amongst the nurses about that; that these people were basically left alone. As nurses during lockdown, we could not go into comfort them without being in full PPE. It was basically, we were encouraged to only be in there for the briefest amount of time possible because I would go out and help on the floor…. People [colleagues] were telling me their fears and their concerns and just seeing little old people without their family there when they were dying from their stroke or their heart attack or whatever.* [#25, emergency department]

Participants spoke of the extraordinary circumstances, and the empathy needed was additional to the usual caring:

> *It's not like nursing any other person in any other given situation. You had to have a lot of empathy … you had to be totally on that patient's side. They basically were so frightened and so scared. They looked to you, and here you are all dressed up [in PPE]. Let alone if you've [a patient who has] got a psychiatric problem or if you've got delirium.* [#10, seconded to work in COVID area]

Staff in residential aged care were acutely aware that they were substitute family for residents. They also struggled with the requirements for social distancing between residents; an impossibility with cognitively impaired residents unless they were confined to their rooms:

> *They were locked in their room for quite some time, and were I guess becoming a little bit frightened. I think we certainly had a lot more singing and a lot more fun amongst the staff, because we didn't have outside people coming in to do that kind of entertainment. I think we all did sort of join hands and try to make it a much more pleasant place to be…. We actually are their family…. We can cover their role of the family for a short period of time. But, to lock someone in their room, and to isolate them from other residents, I think that's a really big thing to do to somebody without asking them if that's what they want.* [#16, aged residential care clinical manager]

Participants also highlighted the moral challenge of emergency situations, where staff had to ensure they have correctly put on PPE before attending to patients:

> *I had a few incidents like this where we did have someone cardiac arrest and I did put my foot down and say, "You have to PPE up before you go into the room. I know they're not getting compressions, but you've got to put your PPE on." Super hard to do.* [#28, emergency department]

Across the dataset participants' moral distress was evident, as well as numerous examples of their willingness to companion patients and residents, at times acting as de-facto family.

Heroes and pariahs

One of the terms that arrived with COVID was 'essential worker.' Social media were full of examples of frontline staff being treated both as heroes and pariahs. Participants described the range of responses to their role:

> *There was a lot of flak up here when the nurse who was in managed isolation and she had gone to the gym and tested positive. And there was a hue and cry about that, and I used to say to people, "Listen, these people, these nurses are putting their life on the line. She's entitled to go and relax, and she didn't know that she was infectious." To me there seems to be, and I admit that I'm biased, that there are so many expectations of nurses but there is not the respect or the consideration.* [#11, agency]

Many participants shopped for their families as a safety strategy, as well as working, yet the option to go to the front of the queue was unpleasant for some:

> *The supermarket experience wasn't excellent. Some of our staff had very bad experiences at supermarkets, where if they went to the front of the queue because they were essential workers, they were verbally abused in the queue. I decided I was not going to tell anybody I was a nurse in the community. I didn't disclose I was a nurse. I waited in the queues. I didn't use the 'front of lines.' What we had seen a lot of was people being quite aggressive.* [#12, primary healthcare]

Participants who worked with known COVID-infected people experienced ostracism by colleagues:

> *We were isolated and ostracised by all the other nurses and staff in the hospital as well. As soon as anybody knew we were a COVID nurse ... people are very frightened and they're scared, and they don't want anything to do with you. It's not personal.* [#10, seconded to work in COVID area]

One participant highlighted that there were not mechanisms in place in his context to protect frontline staff from family members' anger:

> *We were subject to a lot of abuse. "You don't know what you're doing; I'm going to ring my local MP [Member of Parliament]; I'm gonna ring Jacinda [Prime Minister]; I have rights." Terrible, terrible. And I got a lot of complaints, and a lot of formal complaints as well. And as a charge nurse I get quite distressed when I get a complaint about my ward because I think I do a really good job. But this situation [families unable to visit] was government driven. A lot of us still feel today that there should have been a filter that those complaints should have gone, [been] taken away from the ward and the nurses [to] deal with…. No, we got abused terribly, terribly, awful. A lot of swearing, F this, F that.* [#1, medical charge nurse]

Abundant data highlighted nurses' caring and suffering. Although they went beyond the usual professional boundaries to protect and nurture colleagues and patients, frontline staff often

experienced ambivalent or hostile reactions within their communities.

Discussion

The purpose of this article is to identify the COVID-19 pandemic impacts on nurses' wellbeing and to explore resilience and mitigation strategies nurses adopted to sustain their wellbeing. The dataset indicates many exemplars of sensemaking; the process whereby people adapt to disruption and find momentum and purpose within their ever-changing reality. Crises provide an opportunity for improvisation and modification. Sahay and Dwyer (2021) in their exploration of sensemaking use the notion of job-crafting to conceptualise the ways that nurses during the pandemic have modified working practices to adapt to a rapidly changing context. This job-crafting at times entailed eschewing edicts from remote leaders when these decisions did not have currency in nurses' context. Job-crafting was evident in the current study. For example, in the residential care context staff considered it inhumane and unachievable to attempt social distancing with people with dementia and in some instances, staff lived in their facilities to become a bubble with the residents.

Nurses were cognisant of the gap between the government's insistence there were adequate PPE supplies and their clinical realities. These experiences echo Ancona's (2012) argument about the inherent challenges of sensemaking; comprehending and acting on the gap between aspirational commentary and actual capacity to deliver. Nurses in this study were subversive in ordering additional stock to ensure their staff and patients were not at risk due to unreliable supply issues. The data illustrate many instances of job-crafting to boost team morale and promote collegiality. An aspect of job-crafting is changing one's relationship with aspects of a role to make it more meaningful. Across the dataset it was clear that nurses found additional purpose in their sense of being de-facto family members for patients and residents, including those who were dying.

Part of the sensemaking challenge in this pandemic thus far, has been the (mis)alignment between leaders' messages and the noticing and meaning-making of clinical staff. There was a dissonance between the government's national narrative of 'everything is going well,' at times reiterated by remote-working DHB leaders, and the actual chaos experienced by frontline nurses. The outcome was that problems, such as inadequate supplies of appropriate PPE, were not being acknowledged, thus were not dealt with, compounding stress for frontline nurses (McGuinness Institute, 2020). These experiences are echoed by frontline nurses internationally. Shanafelt and colleagues (2020) conducted 'listening sessions' with a total of 69 interdisciplinary participants early in the pandemic in the US. They identified that staff confidence in healthcare systems was weakened when they perceived core aspects of their safety and comfort were left unattended. Key concerns were summarised as five requests: "hear me, protect me, prepare me, support me, and care for me" (Shanafelt et al., 2020, p. 2133). These requests are pertinent to the current study, where frontline staff often felt they occupied a different world than that spoken about from the podiums of the government's daily briefing. This discrepancy, also noted by Wayland (2021), increased the liminality for nurses; the sense that they occupied a world where their status, expertise, and vulnerability were contested.

In terms of feeling heard, clinical leaders in the current study perceived that their responsiveness in ensuring their teams felt heard, protected, prepared, supported, and cared for impacted positively on teams' morale. This local leadership also partially mitigated the frustrations of ill-fitting rhetoric from remote leaders. For example, local leaders fostered positive emotions through making explicit the emphasis on staff safety. They also prioritised communication and collaboration through regular 'huddles', shared staff meals, and were physically present. In our study, effective leadership appeared to entail senior nurses making the same personal sacrifices or greater than were expected of direct-care staff, such as diminished contact with wider family. The importance of effective local leadership has been identified in other COVID-19 commentaries and studies (see for example Labrague & De Los Santos, 2020; Moore, 2020; Prasad, 2020). Part of effective leadership involves recognising diverse contexts for staff and their families and responding to the differing levels of wellbeing and distress in team members in a person-centred manner (Rosser et al., 2020; Shanafelt et al., 2020). In the current study it was clear that frontline nurses experienced divergent emotions and meanings associated with their work, ranging from excitement; a sense of spiritual and

professional purpose; through to personal chronic anxiety and family-related distress.

Across the dataset and echoed in the media and scholarly literature were examples of nurses being treated both as heroes and villains; heralded as angels and ostracised and blamed as vectors of transmission (Alves, 2020; Loveday, 2020; Song & McDonald, 2021; Tomlin et al., 2020). The associations with altruism do not necessarily serve nurses well (Slettmyr et al., 2019). Wilson et al., (2020) argue that the superhero metaphor presupposes a transcendent being not requiring of decent wages, dedicated to high calibre care at personal cost. However, as identified in the current research, altruism also fostered resilience in some participants; a point noted in some studies (Specht et al., 2021; Wang et al., 2020). By 12 June 2020, 96 healthcare and support workers had acquired COVID-19 in their workplace; 6.4% of total infections (Ministry of Health, 2020). Appleton and colleagues (2021) note that the narratives of the 'team of five million' winning over the virus subsume the alternative realities of frontline workers' lives. While the 1pm briefings by the Prime Minister and the Director General of Health were seen by many as an act of social solidarity, for some nurses this was a type of reality television show with the lived experiences on the frontline smoothed over to create national confidence.

Conclusion

Metaphorically, frontline nurses in the first wave of the pandemic navigated a liminal space often with 'maps' provided by remote leaders that did not reflect their local landscape. These nurses endeavoured to make sense of this fast-moving context, finding workarounds and substitutes for even the most fundamental care practices, such as companioning dying people. They also had a morally distressing 'policing' role, such as being enforcers of patients' families having only remote contact. Frontline nurses found themselves in a liminal space, part of the newly minted category of essential workers, their presence both lauded and shunned. In their private lives they also weathered distancing themselves from personal sources of intimacy and comfort, keeping their bubble either small or even solitary, to protect kin.

Participants often expressed the dissonance between national rhetoric and their experiences of chaos and uncertain or unavailable resources and the concomitant safety concerns. These gaps included clear health and safety breaches. Participants' prior life experiences; personal support systems; beliefs and values; and sense of local leadership and teamwork accounted for the exemplars of resilience. Team adaptation occurred where clinical leaders were flexible, creative, optimistic, demonstrated they valued each team member, and had a 'hands-on' leadership ethic. The study highlighted the thorny issue of altruism in nursing when nurses are not resourced to care. In a gendered workforce, healthcare leaders must be cognisant that these essential workers are also typically providing crucial services within their families and communities.

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Original Article / He Rangahau Motuhake

Keeping our borders safe: The social stigma of nursing in managed isolation and quarantine border facilities during the COVID-19 pandemic

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Abstract

This article reports on a qualitative, single centre descriptive study on the experiences of nurses working in managed isolation and quarantine facilities (MIQFs) in Aotearoa New Zealand. Semi-structed interviews, via Zoom, took place with 14 registered nurses. The focus of this article is on the personal and social impacts on the nurses. The four themes discussed are: protecting the community while being a risk to the community; the barriers beyond the borders – social stigma; kept at distance - families and social connections; and a part of, but apart from, other health professionals. This study captures a unique moment in the history of Aotearoa New Zealand and highlights how the nurses' professional and personal lives were significantly impacted. Unlike other studies of nurses caring for COVID-19 patients, the MIQF nurses were caring for guests who were in isolation due to the Aotearoa New Zealand's government directive to protect the borders from people returning to the country. The study offers valuable lessons for employers, colleagues, and the wider community about the necessity of supporting nurses through times of a pandemic.

Keywords / Ngā kupu matua: COVID-19; border protection / te tiaki i ngā tomokanga; isolation and quarantine / te noho takitahi me te taratahi; stigma / ngā take whakamā; nurses / ngā tapuhi

Te Reo Māori translation

Te whakahaumaru i ō tātou tomokanga mai i tāwāhi: He take e whakamā ai te tangata i waenga i te pāpori, arā, te mahi tapuhi i ngā pūtahi noho takitahi me ngā whare taratahi i ngā tomokanga mai i tāwāhi, i wā o te mate urutā o COVID-19

Ngā ariā matua

Ko tā tēnei tuhinga he tāpae pūrongo mō tētahi rangahau kounga whakamārama pūtahi kotahi mō ngā wheako o ngā tapuhi mahi i roto i ngā whare noho takitahi me ngā whare taratahi (MIQF) i Aotearoa. I whakahaeretia ētahi uiuinga āhua ōkawa nei nā te Zoom, ki ētahi tapuhi rēhita, 14 huia katoatia. Ko te aronga nui o tēnei tuhinga ko ngā pānga whaiaro pānga pāpori hoki ki ngā tapuhi. E whā ngā tāhuhu i wetekina: ko te tiaki i te hapori i te wā o te mōrearea ki te hapori; ngā maioro kei tua atu i ngā tomokanga – ngā take whakamā i te hapori; te noho ki mamao - ngā whānau me ngā hononga ā-pāpori; me te noho hei wāhi, ahakoa tawhiti te noho, o ētahi atu rōpū kaimahi hauora ngaio. Ka hopukina ngā āhuatanga o tētahi wā motuhake i Aotearoa, i tēnei rangahau, hei konei ka kitea te pānga nui ki ngā oranga ngaio, whaiaro hoki o tēnei mea te tapuhi. He rerekē tēnei rangahau i ētahi atu rangahau mātai ki ngā mahi taurima a ngā tapuhi tiaki i ngā tūroro o COVID-19. I te taurima ngā tapuhi Whare Taratahi i ngā manuhiri noho takitahi, i raro anō i te whakahau a te kāwanatanga o Aotearoa kia tiakina ngā tomokanga

i ētahi atu tāngata hoki mai ki tēnei motu. He nui ngā akoranga whai take mō ngā kaituku mahi, ngā hoa mahi me te hapori whānui, mō te hira o te tautoko i ā tātou tapuhi i ngā wā o te tētahi mate urutā.

Introduction

From January 30, 2020, COVID-19 became a notifiable disease in Aotearoa New Zealand (Jefferies et al., 2020) with confirmation of the first case in the country on 28 February 2020. By 11 March 2020, the World Health Organization declared COVID-19 a global pandemic. With many countries experiencing an exponential rise in infections and mortality rates, international borders rapidly closed. By 20 March 2020, the New Zealand government announced the closure of its borders to all but returning citizens, residents, close relatives, and approved essential workers and a nationwide lockdown came into force on 12 March 2020. All people entering Aotearoa New Zealand were required to stay in managed isolation and quarantine facilities (MIQFs) for at least 14 days. Those with a positive COVID-19 test were housed in designated quarantine areas where nurses were identified as the key health workers. By end January 2021 (the time of data collection for this study) there had been a total of 2,313 positive COVID-19 cases of which 594 had been at the border and stayed in MIQFs (Ministry of Health, 2021). This study describes the experiences of nurses working in MIQFs.

Background

The initial public health strategy in Aotearoa New Zealand was one of containment of the virus. As the lockdown progressed and new COVID cases diminished, the strategy shifted from containment to elimination. This was to be achieved and maintained through tight border controls and rigorous community surveillance including contact tracing. Initially, returning international travellers were required to self-isolate in the community however, on 9 April orders under the COVID-19 Public Health Response Act (2020) commissioned the use of New Zealand Defence Force facilities until empty tourist hotels were urgently converted into what became known as Managed Isolation and Quarantine Facilities (MIQFs) (Jack & Corich, 2021). All international travellers (guests[1]) arriving in the country required to isolate for at least 14 days in a managed isolation facility (Ministry of Business Innovation and Employment, 2020). Guests identified as having active COVID-19 were separated from others and relocated to a managed quarantine wing, with nurses as the key workers.

When the MIQFs were first established nurses were urgently employed via a recruitment agency. As the March 2020 lockdown extended, nurses working predominantly in perioperative and surgical areas where arranged surgery had been cancelled, were asked to volunteer for secondments to MIQFs. There were no specific operating procedures or protocols to guide them and very little orientation to the role. The processes were initially managed by the Ministry of Health however this transferred to Ministry of Business, Innovation and Employment (MBIE) in July. As Jack and Corich (2021) note, this was a context of urgency with sometimes only hours between a facility being stood up and the arrival of the first guests. Government agencies collaborated and worked together in processes of continuous quality improvement to tighten border controls and prevent the virus re-entering the community. New protocols and procedures evolved in response to incidents that occurred in the MIQFs, or at the borders, and as more data became available about the transmission and behaviour of the virus.

Nurses working in the MIQFs described their workload as relentless as they dealt with a high guest to nurse ratio and a countless number of problems for example, supporting people with escalating mental health issues; withdrawal from drug and alcohol; continuous rule changes; and supporting guests who were facing family crises and upset at the physical separation from their support networks (Longmore, 2021). Apart from routine COVID-19 testing nurses faced the challenges of dealing with stressed and often unwell guests at 'arm's length' due to the barriers of wearing full Personal Protective

[1]The term "guests" is used throughout the article because that was the word used by the participants. It is important to note that MIQFs are not hospitals rather they are facilities that were established to quarantine people who were returning to Aotearoa New Zealand during a pandemic.

Equipment (PPE) plus social distancing requirements set by the New Zealand government (Longmore, 2021; New Zealand Government, 2021).

Dealing with a global pandemic is not a new endeavour for nurses (Chan et al., 2005; Woods, 2016). Despite this, nurses have reported high levels of stress and stigmatisation. During the 2003 SARS pandemic 80% of nurses working in a Hong Kong hospital reported work-related stress due to the rapidly changing nature of the work, ongoing changes to infection control guidelines, heavy workloads, and the many uncertainties about the pathology of the disease. While 98% of nurses adhered to infection control measures 19% decided to self-isolate from family, friends, and the wider community which Chan et al. (2005) speculated added to a sense of social isolation.

Nurses caring for patients during a pandemic have been described as heroes fighting the enemy while simultaneously being stigmatised by the public (Khanal et al., 2020; Mauder et al., 2006; Mehta et al., 2021; Sadang, 2021). This stigma during the 2003 SARS outbreak extended to the nurses' families, with accounts of children being excluded from school and partners being sent home from work (Hall et al., 2003). Aotearoa New Zealand nurses working in MIQFs have also encountered this phenomenon (Longmore, 2021). Given this unprecedented situation the intention of this research was to uncover the experiences of the nurses working in the MIQFs so that these experiences, and the lessons learnt, could serve as a blueprint for the management of any future pandemics.

Methods

Study design

A qualitative descriptive approach, as described by Sandelowski, (2000) was used for this single centre study. This allowed for gathering information from participants in order to provide a "comprehensive summary of events in the everyday terms of those events" (Sandelowski, 2000, p. 334.)

Ethics

Ethics and locality approvals were given by the Ara Institute of Canterbury and the District Health Board (ref RO 20254).

Sampling, recruitment and data collection

Participants were recruited via purposive and snowballing sampling methods. Information about the study was sent to the work email addresses of all nurses working in the MIQF's. Those who were interviewed were encouraged to remind their colleagues about the study. Participants were interviewed by the second author (JK) via Zoom or face-to-face using a semi-structured interview. Consent was obtained prior to the interview. The interviews were conducted between mid-December 2020 and mid-January 2021 and lasted 35 to 85 minutes. Due to the rapidly evolving nature of isolation and quarantine requirements, in relation to the changing global and national context of the pandemic, the timing of the interviews reflects a snapshot of that particular time and the months preceding. Interviews occurred before vaccination became available in Aotearoa New Zealand.

Interviews were transcribed by an independent confidential transcription service or the interviewer. Transcripts were returned to those participants who indicated they wished to check for factual corrections or editing prior to inclusion in the data set. The transcripts were also anonymised and all distinguishing features removed.

Data Analysis

Data was analysed using the six-phase process for thematic analysis as described by Braun and Clarke (2006). Authors IJ and CA independently worked through the first three phases of familiarising themselves with the data; generating initial codes; and searching for themes before comparing findings. Phase four reviewing themes, and phase five defining themes were agreed collaboratively. All authors contributed to phase six; the draft and final reports. Trustworthiness of the study was implemented by applying the criteria of Lincoln and Guba (1985). This has been demonstrated through the use of the participants' verbatim words to link to themes, and the description of the data collection and analysis processes to demonstrate rigor. In addition to the checking and rechecking of the emergent themes and analysis by the three authors, the themes and draft findings were independently checked and verified by a nurse working in the MIQFs who was not involved in the study.

Findings

The 14 participants ranged in age from early 20s to early 60s, included males and females, and nurses whose initial registration was New Zealand as well as those initially qualified overseas. Participants had

been registered nurses for two months to over 40 years with a broad range of primary, secondary, and tertiary nursing experiences. Participants had worked in the MIQFs between five weeks and nine months. At the time of the interview most participants were still working in MIQFs with one returning to her original workplace from a secondment. Three had resigned or were no longer working in MIQFs.

Working in MIQFs had a significant impact on nurses. All participants recounted situations where they felt judged and ostracised by non-MIQF colleagues, friends, family members, and the community in general. Four themes emerged and are described in this section: Protecting the community while being a risk to the community; barriers beyond the borders – social stigma; keeping distance and being kept at distance – families and social connections; and a part of but apart from other health professionals.

Protecting the community while being a risk to the community

Nurses were confronted with the paradox of being tasked with protecting the community from the virus, while being seen as a risk to the community due to their direct contact with guests returning to the country who were COVID-19 positive. Situations where there had been transmission between guests and community outbreaks were traced back via traditional public health contact tracing methods and genomic sequencing to identify the source of transmission from the MIQFs to the community. An unintended consequence of contact tracing for the nurses working in MIQFs was a sense that they were not altogether trusted by others to do their job correctly, and that they posed a risk rather than a protective function to the wider community. They felt blamed for the transmission of the disease when the transmission was often beyond their control such as MIQF ventilation systems being the vector and not their nursing practice:

> *People trust [non-MIQF nurses] to do their job. I think my hope would be that not only other health professionals but also the New Zealand public actually appreciate that. They need to maybe have a little bit more faith in us and our practice. [P12]*

> *The systems were probably as good as they could be at the time, and we were safe going to work, and hence the community's safe and we're not a risk to the community. It was a shock to me to get to New Zealand [to work as a nurse] and get a sense that that wasn't really the understanding in the community*. [P11]

Nurses were concerned at the way positive cases of COVID-19 were reported by the media. This led to a perception that the MIQFs were failing because they had positive cases. Nurses pointed out that positive cases identified then managed in MIQF was the strategy to prevent the virus infiltrating the community and this was not a failure of the system:

> *They talk about the numbers of COVID in the country every day or every third day or whatever it is now. Actually, it's not in the country, it's in managed isolation, so that's a good thing. Stop looking at it as a negative. Actually, you know what: it's working. So far, we're still not transmitting it through to the community*. [P5]

The MIQF nurses accepted that although they were exposed to positive COVID cases returning from overseas, they were the frontline of preventing transmission to the wider community.

The barriers beyond the borders: Social stigma

Each of the participants recounted numerous examples of situations they or their colleagues encountered where their place of work and its associated stigma impacted their personal and social lives. They made adjustments in their lives to accommodate working in MIQFs. Personal friendships changed and they limited their social activities often due to the perceptions of others. Practices and policies of government agencies reinforced the message that MIQF workers were different to the rest of the community and, at times, placed restrictions on their wider movements:

> *Another thing that's making it quite difficult is that the Ministry of Health have put out that directive of not able to have second employment*. [P8]

> *Council buildings, they simply said, "Anyone who's working in MIQ is not allowed in here."* [P14]

The nurses were confident in their use of PPE and the reduction of their personal risk in contracting the virus. The nature of their work in teams required that they cross check one another and were vigilant in

identifying and correcting any momentary lapse including amongst the wider MIQF staff:

> *They [the public] don't understand how seriously we take it and how we manage it, what we do to keep ourselves safe at work….We've got rules and we know social distancing, we know hand hygiene, we know putting on and taking off of PPE*. [P2]

> *I didn't get COVID. I'm not super-scared about it, cos I know that I'm doing the proper PPE. You won't get any COVID if you're wearing the proper one and you're wearing N95 mask in the quarantine area. If you do your PPE well, then it's not scary*. [P6]

Nurses can be required to self-isolate or be stood down from work for up to 14 days when identified as a close contact of an infected case or when there is a breach in PPE processes such as in a clinical emergency. Reconnecting with family and friends post-isolation can be challenging when others are concerned about ongoing risk:

> *I said to one person, "oh well come and have lunch" and she went, "No, you're working in isolation. I don't want to have anything to do with you." I was gutted. I'd spent two weeks in isolation [myself], not seeing anybody.* [P9]

At times nurses went to quite extraordinary lengths to ensure that they did not personally become the vector for community spread. Nurses voluntarily undertook additional monitoring of their COVID-19 status in anticipation of social events and restricted their contact with friends and family. This vigilance increased at times of higher risk such as when they were working in areas where there were multiple COVID outbreaks amongst groups of guests within the MIQF:

> *I did decide that I was not going to see people outside of work for that period of time [during a COVID outbreak in a MIQF]. That means changing appointments; not seeing my parents, my brother with special needs. You do end up limiting what you do out of work. I don't think I even went to a supermarket during that time*. [P5]

> *I'm very careful. I'll stay at home until I get my swab result on my day off, which is just a personal choice.* [P13]

Despite this caution, interactions with others demonstrated that fear of catching the virus was widespread in the community. Nurses felt stigmatised and ostracised by the actions of family and friends including being excluded from celebrations and special events:

> *I invited my sister and her family over for a Christmas BBQ and she said she was sorry, but they wouldn't be able to come because her husband was very worried about COVID*. [P3]

> *Mum said to me, "Just come to the back door and we'll cut you some cake." I said, "You're kidding me." She said, "It's because of nana, she's old." But she's not sick. They just didn't want me in there*. [P4]

For the nurses, the impact of working in MIQFs extended beyond the workplace affecting their relationships and curtailing social and recreational activities. At times this had a marked personal impact but, despite this, most of the time the nurses made the necessary adaptations to their lives so that they could continue with their work.

Kept at distance: Families and social connections

Nurses identified that their family members and close contacts were sometimes the target of the fears and prejudices that they experienced themselves. Family members were made to feel they were a risk to the community because of their connection with a MIQF worker. Nurses described situations where workplaces and community organisations wanted reassurance or personal health information from their family members to prove that the nurse was not infected or was effectively monitored. When accessing healthcare, a link to a MIQF worker immediately raised the possibility that the family member may have the virus:

> *[The health professional] tried to pin the shortness of breath on me, like that I had COVID and I'd passed it on to my mum, despite my mum having this worsening shortness of breath over six weeks, and I get weekly tests*. [P8]

On the rare occasion that a colleague tested positive for COVID, close contacts within the nursing team were stood down and required to self-isolate at home or in a quarantine facility. Family members of the close contact nurse were sometimes required to self-isolate resulting in situations such as family

disruption, absence from work without pay, and missing study:

> *They wanted me to get them [children] out of uni and out of work and say you have to come home….They said, "Until you get a negative result, everybody's gotta stay home*." [P9]

In some cases, the impact of self-isolation or discrimination towards family members was of such significance that it led to nurses discontinuing their work in MIQFs.

> *I never want to be in the situation of having to isolate when I am sole parent, again!* [P3]

Some employers have sought reassurance that co-habitation with a MIQF nurse does not introduce risk to their workplace. Family members and flatmates have been asked to produce written evidence that the nurse is COVID free:

> *I've got a letter that I've given my husband to take to [his employer]*. [P2]

> *I live in a flat with several other young working professionals and one got told not to come into work when they found out where I worked… Both of their employers were wanting proof of my latest swab*. [P13]

In situations where a family member or flatmate was employed in the aged care sector, their formal conditions of employment reflected the deep concern that household contact with a MIQF nurse posed an unacceptable level of risk of virus spread to a vulnerable population:

> *In their contracts they [employer] don't want her [sister] to be near anyone who works in MIQ[F]*. [P3]

> *The discrimination level is really bad…. since I was working in isolation they have stood her (flatmate) down from the aged care. She's paid though, which is good, but I felt guilty and she can't work anymore. I had to move out.* [P6]

Nurses working in MIQFs had to balance how their place of work impacted not only on them personally but also on their significant others who are part of their social and support network outside work. Sometimes this situation became unsustainable, and they felt no alternative but to resign.

A part of but apart from other health professionals

The nurses described a number of challenging situations for them personally or when a family member needed to access healthcare. Many had incidents where they interacted with the health system and received responses from other health professionals that made them feel ostracised or unwelcome:

> *[The charge nurse told me] "Now we gonna have to deep clean this whole room." He just was nasty. He was saying that I was putting everyone at risk*. [P8]

> *There was a sign that said if you worked in a managed isolation [you] had to gown up and put a mask on and all the rest of it and get shuffled into a separate room*. [P10]

> *The reception I got [at a health service] was not only different but it was done at a volume that people around me in the waiting room, members of the public, could hear exactly what was being said. I could feel that people that were behind me actually were taking steps away from me*. [P12]

Somewhat ironically, barriers put in place to minimise contact between the MIQF nurses and other nurses at employment related events meant that they were physically distanced for the event but free to mingle socially at breaks, lunchtime, and outside work:

> *[MIQF nurses] have to sit in a different room and Zoom it, which is crazy. Because then they go off and have morning tea and lunch together. Some of them live together*. [P2]

When interacting with other health professionals for guest/patient related matters, MIQF nurses wear PPE. Despite this there is still a strong sense that they present a risk to other health workers:

> *The nurses who are receiving the patient have been the worst … there's a lot a lot of fear and a lot of misinformation*. [P7]

The boundary between work related and social activities became blurred. As is common in the wider community, social contacts are often those who have similar jobs and interests. For many MIQF nurses, their social networks include other nurses and health professionals.

> *I've had some of my colleagues who go out with their normal group of friends for dinner or something, but no one will sit next to them. Generally, they're with other health professionals.* [P5]

Nurses working in MIQFs did not expect to experience discriminatory behaviour from their colleagues in non-MIQF settings.

Discussion

Participants worked across six facilities in one geographical location and while they did not work in an austere setting, as noted by Talbot et al. (2021), they were undoubtedly working in an environment of uncertainty and constant change (Jack & Corich, 2021). Unlike other studies of nurses caring for COVID-19 patients, the MIQF nurses were caring for guests who were in isolation due to the New Zealand's government directive to protect the borders from people returning to the country. While only some guests were COVID-19 positive, the MIQF nurses held a strong sense of responsibility to keep the community safe and COVID free. However, in doing so they have, at times, been stigmatised by friends, family, and other members of the health profession. The stigmatisation of nurses during times of a pandemic is not unprecedented. This phenomenon occurred during the HIV, Ebola, and SARS outbreaks (Hall et al., 2003; Kohi et al., 2010; Mauder et al., 2006;Wester & Giesecke 2019) and elsewhere described during the COVID-19 pandemic (Khanal et al., 2020; Mehta et al., 2021; Sadang, 2021).

The experiences of the MIQF nurses were similar to the experiences of healthcare workers who cared for Ebola patients. Wester and Giesecke's (2019) qualitative study of Swedish healthcare workers caring for patients with Ebola during the Sierra Leone 2014 outbreak revealed that even though family and friends were not concerned about contracting Ebola from the healthcare workers upon their return home, they nonetheless exhibited stigmatising behaviour towards them. Some chose to sleep apart from their partner for a period of time; friends talked 'over the fence' rather than going into the healthcare workers home; friends' children were not allowed to visit; and work colleagues chose to use a separate lift. However, the healthcare workers in Wester and Giesecke's study (2019) only experienced this stigma for a brief period. This was attributed to the healthcare workers having returned from an outbreak occurring in another country. At the time when this study was conducted with the MIQF nurses their experiences of stigmatisation had been over approximately an eight-month period and appeared to be ongoing given community concerns about the potential for widespread community outbreaks.

Other experiences captured in this study mirror those reported by Hall et al. (2003) such as the changed practice environment; the paradox of being a hero verses a villain; and the impact on immediate family who themselves were stigmatised because of their contact with an MIQF nurse. Yet the situation in Aotearoa New Zealand, at the time of writing, was vastly different. The nurses in this study were caring for guests, in a confined and contained environment, the vast majority of whom were COVID-19 free. However, this controlled environment coupled with the nurses abiding by strict PPE measures, adhering to social distancing and undertaking on-going personal swabbing to detect COVID-19 was not enough to allay the fears of the wider community.

The MIQF nurses' perceptions of Aotearoa New Zealand's media reporting is also of concern. During the SARS pandemic in Canada media accounts of nurses working with SARS patients fuelled their stigmatisation as well as contributing to their sense of being isolated from the community (Hall et al., 2003). In this instance nurses were concerned that they were being portrayed as failing in their role when positive cases were identified. This added a sense being isolated from the very community they were trying to protect. This concern was also evident in reported findings from a Canterbury District Health Board (CDHB) on-line survey of the well-being of 356 CDHB staff working in the MIQFs (Canterbury District Health Board, 2021).

Strengths and limitations

This study captured the experiences of nurses at a unique and unprecedented moment in Aotearoa New Zealand's history in the context of rapidly evolving systems and processes within MIQFs, and notably prior to the availability of a vaccine. Data were only collected from nurses working in one geographical location so no comparisons can be made with nurses working in MIQFs in other parts of the country. Nevertheless, although findings are not generalisable it is anticipated that the findings will resonate with other nurses working in the MIQF's as well as with their employers.

Recommendations

Findings from this study provide information on the issues facing nurses working in MIQF and direction on the support required now and in future pandemic planning. Employers need to create a safe working environment whereby the nurses feel free to seek independent support and advice if needed, such as access to free counselling services. Furthermore, it is recommended that the employer provides nurses with a robust orientation program prior to working in a MIQF so that they are fully aware of the environment that they will be working in and how it differs to what might be expected in a clinical setting. It is also recommended that the wider community have access to information, via a reliable source such as MBIE, about the role of nurses working in the MIQFs to go some way to mitigating the public's concerns.

Conclusion

The working environment for nurses in the MIQFs is unique: it is not a clinical environment for patients seeking care, rather it is a facility adapted to protect the community by providing isolation and quarantine for people entering, or returning to, Aoteartoa New Zealand. Moreover, the complex and global nature of the pandemic, social media, conspiracy theorists, and anti-science commentaries, make it impossible to moderate and contradict misinformation that the nurses were subjected to. Therefore, it is imperative that colleagues, employers, and health professionals offer their support to the nurses working in MIQFs, enabling them to sustain this challenging role.

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Access as an enabler and an obstacle to nurses' use of ICT during the COVID-19 pandemic: Results of a national survey

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Abstract

The COVID-19 global pandemic has altered the way people in Aotearoa New Zealand live, work, play, and access healthcare, and this has included an increase in the use of technology. The aim of this exploratory study was to understand Aotearoa New Zealand nurses' use of technology during the COVID-19 lockdown, in particular what information and communication technologies (ICT) was being used and how nurses felt about using ICT in their practice. An anonymous online survey, utilising both open and closed-ended questions, was selected as an appropriate and safe data collection method during the pandemic. Snowball sampling was used with an online survey that was sent out during the level 3 lockdown (from March to May 2020) via social media and existing email networks and so potentially dispersed to nurses throughout Aotearoa New Zealand. In total 220 responses were received. The results were analysed using descriptive statistics, and open-ended qualitative comments were thematically analysed. The key finding was that there were significant access issues related to nurses using ICT in their practice: Access to information technology systems and resources, access to technical support, access to connectivity (particularly for those working from home in rural communities) and access to patients and colleagues. As predicted, this study has identified areas for future exploration but highlights Aotearoa New Zealand nurse's ability and willingness to embrace technology to better meet the needs of their patients.

Keywords / Ngā kupu matua: access to technology / noho wātea ki te hangarau; COVID-19; ICT; technology / hangarau; nursing / mahi tapuhi

Te Reo Māori translation

Ko te noho wātea hei ara tīmata, hei tauārai hoki ki te whakamahinga a tētahi tapuhi i ICT i te urutā o Covid-19: Ngā kitenga o tētahi uiuinga ā-motu

Ngā ariā matua

Nā te urutā COVID-19 kua rerekē te noho, te mahi, te tākaro, te urutomo ki ngā tautiaki hauora, o te tangata i Aotearoa New Zealand, nā konei kua piki ake te whakamahinga hangarau. Ko te whāinga o tēnei tirohanga kia mārama ki te whakamahinga a ngā tapuhi o Aotearoa i ngā hangarau i ngā rā o te katinga mō COVID-19, arā, he whai kia mārama ko ēhea ngā mōhiotanga me ngā whakawhiti (ICT) e whakamahia ana, he pēhea hoki ngā whakaaro o nga tapuhi mō ICT i tā rātou mahi. I whiria tētehi rangahau tuihono, me te whakamahi tikanga kohi raraunga hāngai, haumaru hoki, i ū rā ki ngā pātai tuwhera me ngā pātai mutu. I whakamahia tētahi tikanga tīkaro pūputu mā tētahi uiuinga tuihono, i tukua atu i roto i te katinga taumata 3 (mai i Poutūterangi/Māehe ki Haratua/Mei 2020) mā ngā paepori me ngā whatunga īmēra kua tū kē, nā reira, i tae atu pea ki ngā tapuhi puta noa i Aotearoa. 220 ngā whakautu i tae mai, huia katoatia. I tātaritia ngā hua nā te whakamahi i ngā tatauranga whakamārama, me i āta tātaritia ngā whakapuaki kounga tuwhera, i runga i ngā kaupapa o roto. Ko te kitenga matua,

tērā ētahi take tauārai i ngā tapuhi e whakamahi ana i te ICT i roto i ā rātou mahi: Ko te noho wātea mai o ngā pūnaha me ngā rauemi hangarau mōhiotanga, te noho wātea o ngā tūhono ipurangi (otirā mō te hunga mahi i te kāinga me ngā hapori i te tuawhenua, he mea hira tēnei) me te noho wātea mai o ngā tūroro me ngā hoa. I runga anō i ngā matapae, kua kitea ētahi āhuatanga hei mātai anō i roto i tēnei rangahau, heoi anō ka kitea i roto te kaha me te kaingākau o ngā tapuhi ki te hāpai i te hangarau tika hei manaaki i ā rātou tūroro.

Introduction

The number of cases and impact of COVID-19 globally continues to rise with the World Health Organization (WHO) (2021a) reporting a cumulative 265 million cases and over 5.2 million deaths by December 2021. Nurses have, and continue to play, an essential role in every country's response to the pandemic and a reliance on technology has formed part of each country's response (Buheji, & Buhaid, 2020; Bokolo, 2021; Dykes & Chu, 2021).

The impact of COVID-19 on nurses has resulted from concerns for their patients but also their own, and their family's safety (Buheji & Buhaid, 2020; Jackson, et al., 2020). Nurses have been required to use new technologies in unique ways to provide care (Dykes & Chu, 2021). The use of information and communication technologies (ICT) in healthcare, has been quickly adopted during this global emergency, and can be a convenient, safe, scalable and effective method of providing clinical care (Bokolo, 2021). Nursing use of ICT in this context is defined as "the use of computers, information and communication technologies to support nursing practice" (Honey, Collins, & Britnell, 2018, p. 4). This broad definition therefore includes nurses wherever they are working, including in management, education, research, the community, or across primary, secondary or tertiary care. Many nurses have had to rapidly adjust the way they practice and adapt quickly to new working conditions which has included engaging with ICT (Holmes, 2020).

Nurses in many clinical settings have had to change how they interact with patients (Bostock-Cox, 2020). For example, instead of having a face-to-face consultation in a clinic, many virtual consultations have taken place over the telephone or using video conferencing software such as Skype or Zoom (Meehan & Honey, 2020). One example of the use of ICT in healthcare is telehealth, which is defined as "health care delivered using digital technology where participants may be separated by time and/or distance" (New Zealand Telehealth Forum and Resource Centre, 2021, para 1). Telehealth, which may use phone, tablet, or computer audio and video conferencing modes to communicate, can limit the nurse's and patient's exposure while giving the opportunity to provide care (Bokolo, 2021). The WHO *Global Strategic Directions for Nursing and Midwifery 2021-2025* (2021b) supports the use of telehealth, recognising that it can provide protection from occupational hazards. Data and technology may also be used for calculating safe staffing levels, decision-support, improved referral mechanisms, to support nurses working in remote and isolated settings and for integration of health services across the continuum of care (WHO, 2021b).

The COVID-19 pandemic has highlighted nurses use of ICT (Bostock-Cox, 2020; Dykes & Chu, 2021). However, one of the concerns for nurses is their ability to provide and demonstrate care to their patients (Buheji & Buhaid, 2020). Gunawan and colleagues (2020) suggest that using technology may be challenging and have the potential to limit the scope of nursing, noting that nurses use verbal and nonverbal communication, including physical touch, eye contact and gestures, in their interactions with patients to express empathy and to show understanding and respect. However, nurses have the communication skills and the adaptability to provide virtual assessments and meaningful interactions with their patients, though some additional planning may be needed (Meehan & Honey, 2020).

The Ministry of Health (2021) provides ongoing information about COVID-19, with information on confirmed and probable cases, as well as vaccination rates. While Aotearoa New Zealand continues to report a relatively low number of cases and death rate there is still a concern about the potential impact of the COVID-19 pandemic, and particularly the Delta variant (Ministry of Health, 2021) and other emerging variants. Use of ICT is part of the national COVID-19 response, from the Āwhina and COVID Tracer app, the enhanced immunisation database through to technology to support all aspects of nursing practice such as video conferencing and robust databases. However, little was known about

Aotearoa New Zealand nurses' use of ICT during the early stages of the pandemic, hence this study.

Methods

The aim of this exploratory study was to get an overview of how the early stages of the COVID-19 pandemic changed nurses use of ICT and how they felt about using ICT in their practice.

Study Design

A survey was selected for this study as these can be designed to capture data such as behaviours, attitudes and opinions (Polit & Beck, 2017). To obtain an overview of nurses use and perceptions of ICT during the strictest period of COVID-19 quarantine (New Zealand Government, 2020) an online survey was considered the most appropriate method as it could reach nurses throughout the country while maintaining social distancing.

The survey was developed using questions that were drawn from literature and previous research, and were written to be relatable for nursing participants. For example, for one of the questions, terminology from popular nursing theorist Benner (2000) was used. Respondents were asked to determine whether they felt that they were a novice, an advanced beginner, competent, proficient or an expert. The well-known language from Benner (2000) was used purposefully to make the survey easy for the participants to complete. Both closed-ended questions, which were quick to click to answer, and open-ended questions for free text responses were included throughout the survey. Questions asked where the nurse had been working from (their usual work site, home, or another site); their self-assessed proficiency using ICT before and after the pandemic started; if their access and use of ICT had changed; what devices and applications they were using and for what purposes. In addition, statements were provided so nurses could indicate their awareness, compliance and if this had changed since the pandemic started, in relation to the need for security, preventing the spread of computer viruses and malware and how to clean hardware, such as phone and keyboards, to maintain their personal, patient and other staff safety. A final section asked nurses about the barriers they had experienced and their perceived benefits of using ICT. Where statements were provided a scale of responses were possible such as: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree. It was possible to not answer some questions and others had multiple options that could be selected. Pilot testing of the final wording and flow of the questions was undertaken by four nurses before distribution. There were 15 substantive questions in the survey, some with sub-questions, and it was estimated it would take five to ten minutes to complete, so as not be too onerous on the nurses who chose to participate.

Participants

Participants were recruited using a snowball method, known to be effective in recruiting a hard-to-reach populations (Polit & Beck, 2017). The inclusion criteria were that the person completing the survey was a registered nurse, currently practising in Aotearoa New Zealand during the COVID-19 level 3 and 4 lockdown period, which was from 11.59pm Wednesday 25 March until 11.59pm on Wednesday 13 May 2020 (New Zealand Government, 2020). Nurses known to the authors were invited to participate in the study on 22 April 2020, and to forward the survey onto others. The email included a link to the online anonymous Qualtrics survey. In addition, information and the link to the survey was posted on social media (Facebook, Twitter and LinkedIn).

Ethical considerations

Ethical approval for this study was obtained from Otago Polytechnic Ethics Committee (Ref: 2020.856). An incentive to participate was provided in the form of a donation for each completed survey to a national organisation that looks after the wellbeing of young New Zealanders. The link to the survey included participant information and submission of the survey was taken as consent. All responses were anonymous. Minimal demographic data was collected to protect anonymity.

Data analysis

Data analysis was completed using the collating and reporting options from Qualtrics, with additional descriptive statistical analysis using Excel. Comments from the open-ended questions were thematically analysed using the process outlined by Braun and Clarke (2006).

Results

A total of 220 responses were received. Quotes from participants are shown in italics.

Participant Demographics

Demographic data (Table 1) shows that responses were received from nurses across New Zealand and from a variety of nursing practice settings.

Table 1: Demographic data; responses (n) and percentage (%)

	n	%
Geographical region of work		
Upper North Island	82	37
Lower North Island	39	18
Upper South Island	53	24
Lower South Island	46	21
Main area of Nursing Practice		
Management	4	2
Education and Research	22	10
Primary Health Care	96	44
Secondary level care	28	13
Tertiary level care	47	21
Other	23	10
Location of work during L3 & 4 Lockdown		
Home	59	27
My normal work environment	123	56
Other	38	17
Total	**220**	**100**

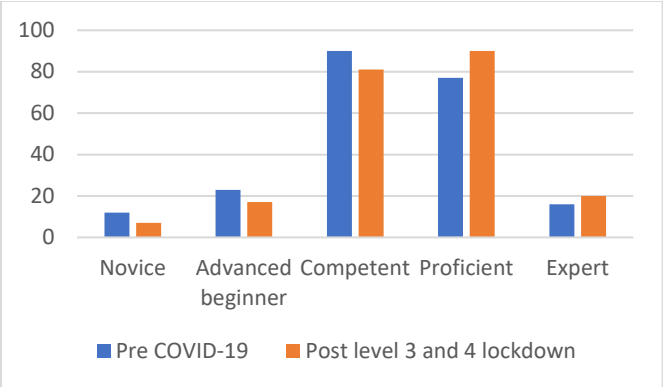
The majority of participants had been working as a nurse for more than 15 years (61%, n=132) suggesting that most were experienced nurses. When asked where they were working from during the level 3 and 4 lockdown, over half (n=123; 56%) were working from their normal work environment, however some were working from home (n=59; 27%); with others (n=38; 17%) indicating they had been being redeployed into community based assessment clinics (CBACs); other departments or facilities of the same organisation; or were working from multiple sites, such as home and workplace.

ICT experience

Participants were asked to rate their proficiency with ICT pre the COVID-19 outbreak and since the level 3 and 4 lockdown. This figure uses common nursing language from Benner (2000) to make the question easier to interpret. Figure 1 shows that that there was a small increase in the number of nurses who rated themselves as proficient and expert in ICT use from before COVID to the time of the survey.

Over half of participants (n=117; 53%) felt that their access to technology had changed since the lockdown. Participants described using phone and video conferencing more often, being able to access particular systems and hardware from another location, and needing online access. Further comments included nurses having "minimal face to face contact", feeling that they are "reliant on technology to be able to do the job", and that "ICT is essential for communication".

Figure 1: Responses (n) to proficiency with ICT pre COVID-19 and post the level 3 and 4 lockdown



ICT use

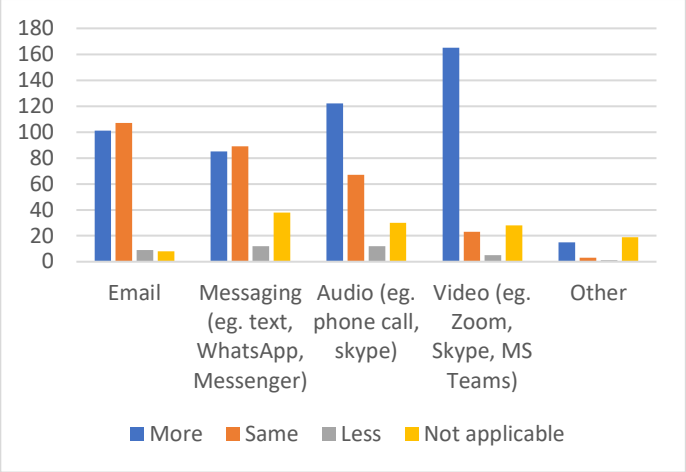
Participants were asked what devices they had convenient use of during the level 3 and 4 lockdown for work purposes (Table 2). Multiple options could be selected. Nearly half (n=131; 45%) reported already having access to all the devices they needed.

Table 2: Access to devices; number (n), percentage (%)

	n	%
Mobile phone (no internet)	9	3
Smart phone (with internet)	42	15
Tablet	13	5
Laptop	36	13
Desktop computer	31	11
Other	23	8
Not applicable/ I already had access to all the devices I needed	131	45

Communication was a key part of providing appropriate healthcare during the level 3 and 4 lockdown. Nurses indicated a range of applications and software were used to support communication with an increase in the use of phone and video (Figure 2). This communication was mostly with other nurses and health professionals (41%), and with patients and their families (28%).

Figure 2: Responses (n) to communication applications (software) use



When asked to identify the main obstacles they experienced in relation to making more use of ICT nearly a quarter (n=74; 22%) reported no obstacles, though having an unreliable connection to the internet was the most common obstacle (n=60; 18%) (Table 3).

Safety when using ICT

Nurses were asked to indicate their awareness of the need for ICT safety in relation to security, including not sharing passwords; preventing corruption by computer viruses and malware; and how to clean hardware to maintain personal, patient and staff safety during the pandemic (Figure 3).

Table 3: Obstacles to making more use of ICT; number (n), percentage (%)

	n	%
I have no obstacles	74	22
Unreliable connection to the internet	60	18
Don't know how to use properly	40	12
Lack of skill	41	12
Already overworked without the burden of ICT use	36	11
Takes me too long	26	8
Fear or anxiety about using ICT	11	3
Other	47	14
Total	**335**	

Figure 3: Nurses awareness of ICT safety

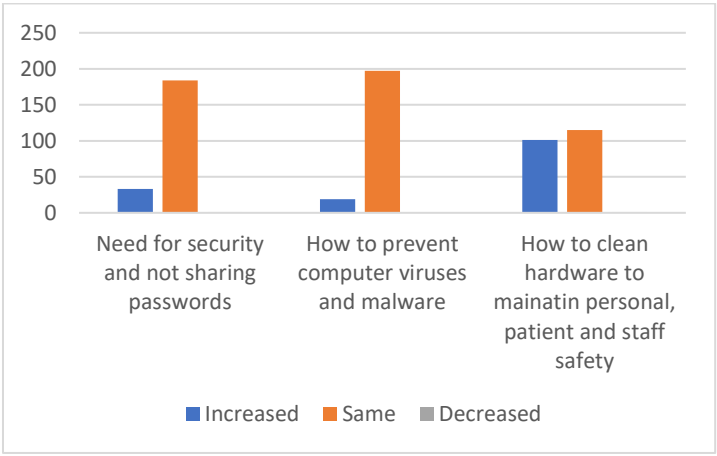
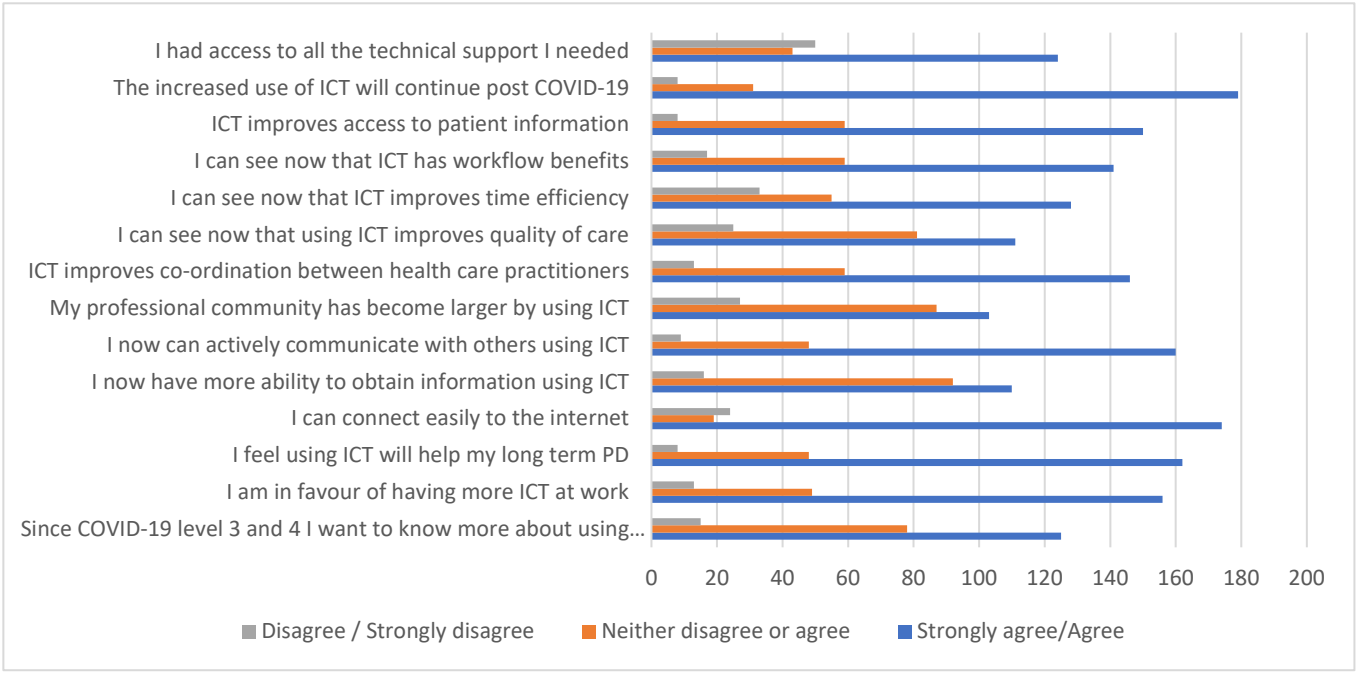


Figure 4: Nurses' perceptions about ICT use



ICT perceptions

Nurses were asked on a five-point scale to indicate their level of agreement to twelve statements related to ICT use. These are reported with strongly agree and agree, and strongly disagree and disagree combined (Figure 4).

Thematic analysis results

Thematic analysis across the open-ended responses identified that the use of ICT has played a significant role in the delivery of healthcare during the pandemic. Nurses indicated benefits of using ICT and looking at the future considered that "the patient needs continue to be at the centre of what we do", and that "patient-led ICT use is important." Other responses included nurses "enjoyed the flexibility of being able to work from home"; felt there was "increased productivity"; that their "team was now stronger for being able to connect using ICT"; that the pandemic had "forced people who were resistant to ICT changes to 'get on board'"; and that they wanted "to see the changes made to their practice" through ICT to continue.

The analysis identified the dominant theme of access, with access both being seen as an obstacle and an enabler. This theme was further broken down into five sub-themes: access to people; access to support; access to resources; access to connectivity; and access to systems.

Access to people

Access to people was the main sub-theme and this included access to colleagues as well as patients. Video conferencing and communication tools such as MS Teams, Zoom, and Messenger were widely commented on and that they were becoming an acceptable part of daily nursing practice.

> *Communication via the use of technology has become more accepted from within the organisation and when working with patients. It is now acceptable to use cellphones for texting or sending pictures, Zoom meetings, emails, MS [Microsoft] teams. This has also paved the way for rapid change that needed to happen but was stalled due to bureaucracy.* [P125]

In particular, being able to communicate with colleagues, while being physically distanced, was an enabler to ensuring work continued, with one nurse stating:

> *All my colleagues who had resisted IT are now on board and loving using Zoom to connect. I think our team is stronger for it.* [P132]

While there has been a reliance on technology for communication for some this has also been challenging at times for both nurses and the patients they are trying to care for. As one nurse explained:

> *[It can be difficult] relying on technology to communicate… and for providing support and assessment of patients when triaging so we can determine if a visit is required.* [P217]

However, nurses were clear that they preferred face-to-face contact, and that ICT was not a replacement for hands-on care, and whatever they did patients were always at the centre which was described by a nurse saying: "Using ICT doesn't perfectly replace face-to-face contact." However, ICT was also described as a barrier:

> *It has worked well for those who have the resources and are able to video conference. Unfortunately, it is not so good for those without resources whom I was unable to connect with due to lack of video capable devices and/or were unable to respond to attempts to connect due to lack of credit on their phones.* [P35]

Access to support

While some staff adapted quickly to the changes needed, as evidenced by a nurse manager saying: "I feel extreme pride in my staff with their flexibility, resilience and adaptability", others did not: "there was an inability of staff to adapt to different ways of doing things." The amount of change required varied: "There has been absolutely no change in IT for me at work"; while for others the change has been significant: "I am feeling a lot more competent in using the laptop, etc off site." Coping with the increased use of ICT was often determined by access to support to manage devices and software. As one nurse described:

> *For at least a couple of weeks I had no access to a work computer… After getting the laptop my access continues to be impeded by IT issues that weren't solved for about another week or so.* [P88]

Another nurse commented on "the lack of support," while a further nurse considered "our IT services have been inundated".

Access to resources

Nurses had a number of challenges accessing resources such as computers and mobile devices to be able to do their job with nurses saying "*[there was] a lack of technological equipment",* and *"I had to request a smart phone in order to be able to access different mediums such as WhatsApp, Zoom, etc".* Whilst for some nurses resources were provided, others had to use their own devices, with associated costs:

> *I have had to purchase a laptop to be able to work from home ... This was essential to be able to continue to provide telehealth to patients.* [P146]

Furthermore, one nurse shared that access to resources was not always equitable saying:

> *I am not supplied with the same hardware as the doctors, but have been advised that I have access to devices of my own that I can use.* [P116]

Some nurses even stated that they had been requesting and needing access to particular IT resources for some time but it was only when this pandemic arrived that they were able to get these:

> *It just amazed me how quick management agreed to and rolled out access [to ICT]... after years of being told we couldn't have it because of cost.* [P218]

For other nurses, there was no change at all to the resources that they needed or the way they worked: "We work in a virtual health setting so we have been prepared for this situation."

Access to connectivity

Being able to connect to the internet was often described as essential during the lockdown, but for many reliable fast internet to support working from home was assumed. Nurses reported reliable connectivity to the internet was challenging with nurses saying: "My home internet (rural) also has an effect on my ability to work normally," and:

> *Working remotely has not been a problem in the past but I'm unable now to use Zoom due to a poor connection.* [P30]
>
> *Internet access and cell phone coverage needs to improve on the West Coast as this was a real challenge at times when out in the community.* [P166]

Connectivity was not only a challenge for nurses who lived and worked remotely as for some there were also financial implications:

> *I did not have internet at home, just very limited data on my prepaid phone only, but now I have had to get unlimited data and it is a personal cost to me.* [P62]

There were some workplaces, however, who recognised the increased need for connectivity and ensured that staff had this:

> *We have been given access to mobile data so we can use telehealth for consults with patients and families.* [P217]

Access to systems

The level 3 and 4 lockdown saw an immense pressure placed on healthcare IT systems by multiple people simultaneously accessing these platforms from a variety of locations as one nurse describes saying: "The systems were totally overloaded which prevented me gaining adequate access." This kind of access issue caused a number of difficulties for staff who were working remotely as well as for those who were working in their normal workplaces:

> *We were making phone calls to our clients. There were not enough phone lines out of the hospital. Systems went down regularly.* [P192]
>
> *I have had to phone colleagues to access information on my behalf and they then phone me back.* [P61]

Some workplaces were not prepared for their staff having to work remotely and therefore the systems could not cope:

> *Incompatibility of systems that are available for use were a problem. I am happy to use ICT for work purposes, but the ICT needs to be fast, reliable and relevant to care delivery – often it is none of these.* [P128]

Nurses reported being given access to ICT systems necessary for them to work remotely from home.

In summary, nurses want to see the increased use of ICT continue as they felt that they had good access to colleagues and patients and could see more clearly the benefits of using ICT in their daily work. One nurses epitomised this saying:

> *I'd like folks to generally continue with using the ICT and not just give it up because 'we're back to normal'. We need to explore the*

> *impact, on patients, family/whānau, staff and systems, of the increased and different ways of using ICT through this period; identify what worked really well and keep that going, identify what didn't work so well and why, then plan to make it better, and identify the gaps.* [P128]

Discussion

The level 4 and 3 lockdown in March and April of 2020 in response to the COVID-19 pandemic was a period of time in Aotearoa New Zealand where the face of healthcare changed dramatically as has been noted also by other countries (Bokolo, 2021). Nurses in this study had to quickly adapt to using ICT, sometimes for the first time, and again this was similar to nurses internationally (Dykes & Chu, 2021). This study found that accessing ICT during the pandemic could augment care and be an enabler but accessing and using ICT was at times a barrier to providing care.

Access was the key finding in this study, which encompassed access to people, support, resources, connectivity, and systems. Access to people was often described in this study as relating to communication with patients. Nurses' concerns about ICT impacting their patient care has been identified in the literature (Buheji & Buhaid, 2020; Gunawan, et al., 2020). The pandemic has also brought concerns about interacting with patients face-to-face. A British study in a mental health setting finding health professionals felt they had lost confidence in their ability to relate emotionally to others and that face masks and social distancing has a detrimental effect on communication (Eddy, 2021). Exploring the use of ICT and the COVID-19 pandemic on Aotearoa New Zealand nurses' communication with patients and other health professionals is an area for further research.

While this study found access to support is important, Buheji and Buhaid (2020) also consider a problem-solving orientation helpful, which would make nurses less reliant on IT support. Bokolo (2021) goes further suggesting a robust and stable network, with consistent access, would reduce the need for IT support, but that also adequate IT support is imperative. Though IT systems that were designed to meet the needs of nurses and nursing practice, that are easy to access and use, would reduce the need for support (Buheji & Buhaid, 2020; Dykes & Chu, 2021). This study indicates the need for improved IT systems and resources to support their use and this is upheld by the WHO (2021) who stress that further investments may be needed in ICT.

In this study issues with connectivity created a barrier to access for some, in terms of consistent and reliable access to the internet and speedy access to the IT systems to see and add to patient information. The Tech Users Association of New Zealand (TUANZ) usefully differentiate connectivity to include the broadband networks (noting Aotearoa New Zealand has world-class high-speed networks), broadband speed and data limits, and the router being used (TUANZ, n.d.). However, TUANZ also note issues continue with rural connectivity, and this was reflected in the findings of this study.

Preparation for this and future pandemics, and to support the continued use of ICT in nursing practice, has implications for nursing education. The WHO (2021) highlight the importance on ensuring the education of future nurses and midwives prepares them for using ICT. This has been noted internationally (Honey et al., 2017). With ICT being used significantly more in nursing practice, as evidenced in this study, it provides further support to ICT being included more in the preparation of undergraduate nursing students. The importance of ICT, and more broadly nursing informatics, being included in Aotearoa New Zealand undergraduate nursing education had already been recognised with the 2018 publication of *Guidelines: Informatics for nurses entering practice* (Honey et al., 2018).

Gunawan et al. (2020,) suggest that COVID-19 has brought "both positive and negative, or yin and yang effects" (p. 1515). This study somewhat reflects this dichotomy, though we conclude with this positive comment from one nurse participant:

> *ICT is great. Instead of seeing it as dehumanising our connections as social beings, we should see it as an opportunity to move forward in this age of technology.* [P73]

Limitations

This exploratory survey recruited participants using a snowballing technique distributed by the authors resulting in 220 responses received. In Aotearoa New Zealand there are 52,000 registered nurses (Nursing Council of New Zealand, 2019), so the sample in this study is very small and caution is needed generalisability. Changes in use of ICT were self-reported during the level 4 and 3 lockdown and need to be treated with some caution. Recommendations are for further research, including repeating the

survey, distributing it nationally to get a higher response rate, and to assess if changes to nurses' use of ICT has been sustained, or if it has altered as the pandemic situation in Aotearoa New Zealand evolves.

Conclusion

This exploratory study found access to be key finding. This included access to information technology systems and resources, technical support, connectivity, and ICT having the potential to support access to patients and colleagues. Both barriers and enablers were identified by nurses working with ICT during the lockdown period, but the needs of patients are voiced as a driver for nurses embracing ICT use. This study identifies areas for future research about nurses' use of ICT in their practice but highlights their ability to provide distanced care to patients and embrace technology.

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COVID-19 among Indigenous communities: Case studies on Indigenous nursing responses in Australia, Canada, New Zealand, and the United States

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Abstract

Globally, Indigenous Peoples experience disparate COVID-19 outcomes. This paper presents case studies from Aotearoa New Zealand, Australia, Canada, and the United States of America and explores aspects of government policies, public health actions, and Indigenous nursing leadership for Indigenous communities during a pandemic. Government under-performance in establishing Indigenous-specific plans and resources, burdened those countries with higher COVID-19 cases and mortality rates. First, availability of quality data is an essential element of any public health strategy, and involves disaggregated, ethnic-specific data on Indigenous COVID-19 cases, mortality rates, and vaccination rates. When data is unavailable, Indigenous Peoples are rendered invisible. Data sovereignty principles must be utilised to ensure that there is Indigenous ownership and protections of these data. Second, out of necessity, Indigenous communities expressed their self-determination by uniting to protect their Peoples and providing holistic and culturally meaningful care, gathering quality data and advocating. Indigenous leaders used an equity lens that informed national, state, regional, and community-level decisions relating to their Peoples. Third, at the forefront of the pandemic, Indigenous nursing leadership served as a trusted presence within Indigenous communities. Indigenous nurses often led advocacy, COVID-19 testing, nursing care, and vaccination efforts in various settings and communities. Indigenous nurses performed vital roles in a global strategy to reduce Indigenous health inequities during the COVID-19 pandemic and beyond. Fourth, historically, pandemics have heightened Indigenous Peoples' vulnerability. COVID-19 amplified Indigenous health inequities, underscoring the importance of high-trust relationships with Indigenous communities to enable rapid government

support and resources. Holistic approaches to COVID-19 responses by Indigenous peoples must consider the wider determinants of wellbeing including food and housing security. Findings from these case studies, demonstrate that Indigenous self-determination, data sovereignty, holistic approaches to pandemic responses alongside with Governmental policies, resources should inform vaccination strategies and future pandemic readiness plans. Finally, in any pandemic of COVID-19-scale, Indigenous nurses' leadership and experience must be leveraged for a calm, trusted and efficient response.

Keywords / Ngā kupu matua: case study / mātai tūāhua; COVID-19; data sovereignty / mana raraunga; global / ā-ao; Indigenous / iwi taketake; inequities / ngā korenga e ōrite; leadership / hautūtanga; nursing / mahi tapuhi; self-determination / tino rangatiratanga

Te Reo Māori translation

Te COVID-19 i waenga i ngā hapori iwi taketake: Ngā mātai tūāhua o ngā urupare tapuhi Iwi Taketake i Ahitereiria, i Kānata, i Aotearoa, me Amerika

Ngā ariā matua

He rerekē i ētahi atu rōpū tāngata ngā putanga hauora mō ngā Iwi Taketake huri noa i te ao, mō COVID-19. Tā tēnei tuhinga he tāpae mātai tūāhua mai i Aotearoa, i Ahitereiria, i Kānata, me Amerika, e tūhura nei i ētahi āhuatanga o ngā kaupapa here kāwanatanga, ngā mahi hauora tūmatanui, me te mahi hautū tapuhi iwi taketake mō nga hapori iwi taketake i ngā wā o tētahi mate urutā. Nā te ngoikore o ngā tikanga a ngā kāwanatanga mō te whakatakoto mahere, rauemi hāngai tūturu ki te iwi taketake i whakataumaha aua whenua ki te pikinga ake o ngā pānga o COVID-19, me ngā pāpātanga matenga rawatanga. He wāhi matua te wātea mai o ngā raraunga kounga hira mō tētahi rautaki hauora tūmatanui, kei roto nei ētahi raraunga kua oti te kōwae, kia hāngai ki tēnā momo iwi, ki tēnā momo iwi, mō ngā pānga COVID-19 Iwi Taketake, te pāpātanga matenga rawatanga, me te pāpātanga whāngainga kano ārai. Mehemea kāore he raraunga i te wātea, kāore rawa e kitea atu ngā Iwi Taketake Me tino whakamahi ngā mātāpono mana raraunga kia noho tonu te rangatiranga ki te Iwi Taketake, kia tautiakina hoki aua raraunga. Tuarua, he mea tino nui kia tū pakari ngā hapori Iwi Taketake i runga i tō rātou tino rangatiratanga, nā te whakakotahi ki te tiaki i te taurimatanga matawhānui, hāngai ki te ahurea, nā te kohi raraunga kounga nui, me te kauwhau tikanga. I riro nā te whakaaro iwi taketake i ārahi ngā mahi a ngā kaihautū iwi taketake kia arahina ngā whakatau ā-motu, ā-rohe kāwanatanga, ā-hapori hoki e pā ana ki ō rātou Iwi. Tuatoru, kei mua rawa i te aroākapa o te whawhai ki te mate urutā, i tū ngā kaihautū hei kanohi e whakaponotia ana i roto i ngā hapori Iwi Taketake. I riro nā ngā tapuhi iwi taketake i hautū te tini o ngā mahi kauwhau tikanga, whakamātautau COVID-19, taurimatanga tapuhi, whāngai kano ārai hoki i ngā horopaki me ngā hapori maha. I kawea hoki e ngā tapuhi iwi taketake ētahi mahi hira i tētahi rautaki ā-ao hei whakaheke i ngā korenga e ōrite o ngā āhuatanga hauora Iwi Taketake i te wā o te COVID-19, i tua atu hoki. Tuawhā, i roto i ngā mate urutā i roto i ngā rau tau kua hipa, kia noho whakaraerae ngā Iwi Taketake o te ao. Nā COVID-19 i whakapiki te noho whakaraerae o ngā Iwi Taketake, i whakaheke hoki te nui o ngā hononga whakapono tiketike ki ngā hapori Iwi Taketake, kia taea ai, kia horo hoki i te tautoko me tuku rauemi mai a te kāwanatanga. Me āta anga atu ngā ara matawhānui mō ngā urupare COVID-19 a ngā Iwi Taketake ki ngā āhuatanga whānui o te toiora, tae atu ki te nui o te kai mā te tangata, me te whare noho o te whānau. Ko tā ngā kitenga mai i ēnei mātainga tūāhua he whakaahua i te hira o te noho o te rangatiratanga Iwi Taketake, mana raraunga, ngā ara matawhānui ki te urupare mate urutā hei mea nui mō ngā rautaki whāngai kano ārai me ngā mahi takatū mō ngā mate urutā o raurangi, i te taha o ngā kaupapa here kāwanatanga. Hei kupu whakamutunga, i ngā urutā rahi pēnei i COVID-19, me tāpiri mai te hautūtanga me te tautōhito o ngā tapuhi Iwi Taketake mō tētahi urupare pakari, ka whakaponotia nuitia e te iwi, me te whai take anō.

Introduction

The COVID-19 pandemic has highlighted the importance of nursing, disproportionate burden of health inequities, and increased infection and death rates for Indigenous Peoples - accentuating the need for population-specific strategies in system responses. COVID-19 has impacted healthcare systems worldwide, with frontline nurses making critical decisions, supporting public health measures, and often leading efforts in Indigenous communities. Native Americans in the United States (US) have been disproportionately affected by COVID-19 (Hatcher et al., 2020), while the Indigenous Peoples of Aotearoa New Zealand, Australia, and Canada had lower infection rates compared to their general populations (Table 1), due to implementation of Indigenous-specific strategies (Power et al., 2020). However, we need to note that since submitting this paper, the COVID-19 Delta variant has rapidly changed the status of Indigenous Peoples in our respective countries. This has increased inequity in COVID-19 infection rates, deaths, and vaccination rates.

The 1918 influenza pandemic in Aotearoa yielded death rates seven times higher for Māori than non-Māori (King et al., 2020). Given historical and contemporary health inequities, Māori health experts urged the government to prioritise Māori-centred responses (Te Rōpū Whakakaupapa Urutā, 2020).

There are 4.9 million people in Aotearoa, and Māori compromise 16.5% of the population. On 1 September 2021, 14.4% of the 3,569 COVID-19 cases affected Māori, and six of the 27 deaths were Māori (Ministry of Health, 2021a). The lower-than-expected rates of COVID-19 can be attributed to stringent public health interventions, such as early border closure, national and regional lockdowns, and compulsory isolation for those returning to NZ; geographical isolation (Jefferies et al., 2020; Robert, 2020); and robust Indigenous policies, strategies, and actions (King et al., 2020; McMeeking & Savage, 2020).

By late August 2021, Australia had 46,728 COVID-19 cases and 986 deaths in two significant waves (Department of Health, 2021). The first wave of COVID-19 in January 2020 had peaked by the end of March. Only 149 Aboriginal and Torres Strait Island peoples (of approximately 800,000 Indigenous Australians) contracted COVID-19 with no deaths (Pannett, 2021). By late August 2021 however, the Delta variant (Department of Health, 2021) resulted in 577 confirmed COVID-19 cases in Aboriginal and Torres Strait Islander peoples and two deaths (Department of Health, 2021). Aboriginal people in rural and remote communities, make up 33% of locally acquired cases (Department of Health, 2021).

In Canada, by mid-August 2021, COVID-19 infected approximately 1,451,969 individuals, resulting in over 26,701 deaths. Most cases (64%) and deaths (77.4%) in the Ontario and Quebec provinces are related to ageing, poverty, and homelessness (Government of Canada, 2021a). Despite the recovery of 98% of people testing positive, First Nations people living on reserves with COVID-19 accounted for 58% of Canada's mortality rate (Government of Canada, 2021b). In Lapointe-Shaw et al.'s (2020) recent study, Indigenous Peoples reported higher rates of COVID-19 symptoms (49.3 vs. 42.9%) and testing (3.7 vs. 1.1%) compared to other vulnerable populations.

While Native Americans comprise 0.7% of the US population, they accounted for 1.3% of COVID-19 cases in 2020 reported to the Centers for Disease Control (CDC) who were identified as Native American (Stokes et al., 2020). This does not account for those Native American cases where ethnicity was not asked, or reported (Conger, Gebeloff, & Oppel, 2021). In 23 states, the Native American incidence rate was 3.5 times greater than White people (Hatcher et al., 2020), with one in every 475 Native Americans dying from COVID-19. Native Americans comprise 16% of these 23 states but account for 68% of overall cases (Hatcher et al., 2020). COVID-19 cases significantly increased in households lacking indoor plumbing and potable water but decreased among reservations with English-speaking-only homes (Rodriguez-Lonebear et al., 2020). The Navajo Nation had over 10,000 COVID-19 cases that killed nearly 600 members (Navajo Department of Health, 2021) – a mortality rate higher than New York, Florida, and Texas combined (Walker, 2020). The pandemic illuminated the vulnerabilities of living on reservations because risk factors for COVID-19 are disproportionately higher (Leggat-Barr et al., 2021).

Indigenous Peoples' greater risks during pandemics stem from historical and contemporary government failures to address ongoing inequities and the effects of colonisation (Power et al., 2020). Poor health and poverty are associated with pandemic severity (Clay et al., 2019). Colonised people are vulnerable to higher rates of communicable and non-

Table 1: COVID-19 landscape in Aotearoa New Zealand, Australia, Canada, and the United States (as of September 21, 2021).

	Indigenous population (proportion of national population)	**Cumulative confirmed cases per million people[e] (n= number of cases)**	**Cumulative number of confirmed Indigenous cases**	**Cumulative confirmed deaths per million people[e] (n=number of deaths)**	**Cumulative Indigenous deaths**	**Proportion of total eligible population vaccinated for COVID-19[e] (all ethnic groups)**	**Percentage of fully vaccinated Indigenous Peoples**
Aotearoa New Zealand	775,836 (16.5%)[a]	847.63 cases per million (n=4,119)	375 Māori cases[f]	5.55 deaths per million (n=27)	6 Māori deaths[j]	73% one dose 39% both dose	*48% Māori had 1st dose (n=274,022) 23% had two doses (n=131,725)[f]
Australia	798,400 (3.3%)[b]	3,504.28 cases per million (n=90,391)	743 Indigenous cases (as of 29 August)[g] Rates not reported routinely on Government website	45.99 death per million (n=1,186)	2 Indigenous deaths[k]	21% one dose 38% both doses	*36% eligible Indigenous Australians had 1st dose (n=169,449) 23% had two doses (n=86,793)[g]
Canada	1,673,785 (4.9%)[c]	41,863.97 cases per million (n=1,589,602)	39421 among First Nations Reserves Communities in all Provinces[h] Unknown, total national Indigenous cases (i.e., those not on Reserves)	723.42 deaths per million (n=27,537)	413 deaths on First Nations Reserves[h] Unknown total Indigenous deaths, data not reported	6% one dose 70% both doses	Unknown total Indigenous vaccination rate However, the COVID Vaccination Coverage Survey estimated 57% First Nations and 45% of Métis adults had been vaccinated in May 2021 - although this was not a representative sample and had small numbers of Indigenous Peoples[h]
United States	2,900,000 single race; 5,200,000 combined race (1.7%)[d]	127,391.67 cases per million (n=43,403,216)	247, 032 Indigenous cases from Indian Health Services[i] Unknown, total national Indigenous cases (i.e., those not using IHS)	2,037.78 deaths per million (n=699,737)	7,425 Indigenous deaths reported via Indian Health Services[L] Unknown, total national Indigenous cases (i.e., those not using IHS)	9% one dose 54% both doses	54% at least 1 dose: 46% fully vaccinated--among those receiving care from IHS[L] Unknown total Indigenous vaccination rate

[a](Statistics New Zealand, 2021); [b](Australian Bureau of Statistics, 2016); [c](Statistics Canada, 2018); [d](Norris et al., 2012); [e](Our World in Data, 2021); [f](Ministry of Health, 2021a); [g](Department of Health, 2021a); [h](Government of Canada, 2021a); [i](IHS, 2021); [j](Ministry of Health, 2021a); [k](Department of Health, 2021a); [L](CDC, n.d.). *Note, the vaccination roll-out in Australia and New Zealand was later than in Canada and USA.

communicable diseases, higher morbidity and mortality, and lower life expectancy (Lane, 2020). Ongoing food, water, hygiene, housing insecurity, and health insurance coverage challenges contribute to higher COVID-19 mortality rates (Lane, 2020; Power et al., 2020). Moreover, racism in healthcare negatively impacts Indigenous Peoples' access to quality and safe healthcare (Lane, 2020; Turpel-Lafond et al., 2020; Crengle, et al, 2012).

Reducing Indigenous health inequities should be a global priority (World Health Organization, 2021). However, Indigenous morbidity and mortality is often invisible during pandemics, particularly when ethnicity is either not captured or incorrect, or disaggregated data by ethnicity rates is unavailable (Lane, 2020; Power et al., 2020). The way in which nursing responds to Indigenous Peoples during a pandemic can make a difference. Therefore, the purpose of this paper is to present case studies from four high-income countries: Aotearoa New Zealand, Australia, Canada, and the US, to highlight two specific objectives: 1) how Indigenous nurses and communities facilitated responses to the COVID-19 pandemic alongside governing bodie; and 2) how government, Indigenous, and nursing actions influenced outcomes for Indigenous Peoples during the COVID-19 pandemic.

Aotearoa New Zealand

Government response

The New Zealand Government swiftly closed borders and established national lockdown protocols (Ministry of Health, 2021b). The Māori Health Directorate developed a COVID-19 Māori Response Action Plan (Ministry of Health, 2020b) that included traditional death practice (tangihanga) guidelines (Ministry of Health, 2021c). The Government also allocated $56.5 million for a Māori-focused COVID-19 response (Parahi, 2020) and $10 million for family (whānau) care packages (Ministry of Māori Development, 2020a). The Ministry of Health contracted Māori health providers and district health boards (DHBs) to provide a coordinated response for Māori, with varying success (Tame, 2021; Te One & Clifford, 2021)

Māori specific responses evoked resistance, highlighting public and institutional racism (Jones, 2020). The top-down allocation of personal protective equipment (PPE), testing swabs, and contracting for services by the Ministry of Health, DHBs, and primary health organisations (PHOs) slowed responses and inadequately resourced providers (Pennington, 2020). The delay in getting PPE to providers, slowed the mobilisation of services, and information for Māori communities (Hurihanganui, 2020b), leaving frontline providers, nurses, and community workers vulnerable. An example from Northland to address these inequities, Mahitahi Hauora Primary Healthcare Entity initiated an equity dashboard to facilitate an extra 20% of PPE distribution to Māori providers (J. Davis, personal communication, 3 August 2021). The vaccine rollout also revealed inequity for Māori compared to other non-Māori ethnic groups. Cumulatively, these factors put considerable stress on Indigenous communities and providers, exposing a complex pipeline of information, contracting, and resource allocation.

Indigenous response

To address the lack of Māori response, Te Rōpū Whakakaupapa Urutā, a self-funded Māori expert alliance group, mobilised virtually to advocate early in the pandemic (Hurihanganui, 2020; Te Rōpū Whakakaupapa Urutā, 2020). Māori providers met the needs of their communities despite being under-resourced. For example, Ngāti Hine Hauora provided child health immunisations, food banks, water, hygiene packs, housing solutions, family violence and mental health screenings, and other advocacy services (Ngāti Hine Health Trust, 2020). Specifically, Māori community workers door-knocked in rural communities to ensure no families were unwell, hungry, unsafe, or lonely during lockdown. Māori grassroots actions also included road checkpoints to prevent virus spread (New Zealand Police, 2020).

Nursing response

Māori nurse leadership at the national level saw the Kaiwhakahaere (Māori lead) of the New Zealand Nurses Organisation, and at the international level Chief Nursing Officer, who is Māori, raise awareness of COVID-19 (Du Pleissis-Allan, 2021; World Nursing Report, 2020). Māori nurses comprise 7.5% of the total nursing workforce yet were disproportionately fronting many COVID-19 testing centres in rural and urban communities by leveraging community relationships and providing clinical and cultural reassurance. Such collective actions (to September 2021) led to higher testing and lower infection rates for Māori compared to other ethnic groups (Ministry of Health, 2020a). However, since this date, the Delta Variant, together with opening the borders to

Australia, has quickly changed the landscape in Aotearoa (following submission of this paper). The lack of prioritising vaccination among Māori populations has seen rapid increases in infection and hospitalisation among Māori.

In summary, the initial COVID-19 response in Aotearoa has been far from perfect, yet low rates of infection and death suggest that through Indigenous leadership and expressions of self-determination (mana motuhake), when coupled with appropriate resourcing and equitable government policies, Indigenous communities can provide culturally comprehensive care that meets Māori need and reduces inequity (Ministry of Māori Development, 2020b). As vaccination strategies roll out across Aotearoa, the same principles of mana Motuhake, high trust contracting with Māori health providers, Māori nurses, and communities must be utilised.

Australia

Government response

The increased morbidity and mortality for Aboriginal and Torres Strait Islander people in previous pandemics (Moodie et al., 2020) prompted the Australian government to collaborate with Aboriginal Community Controlled Health Organisations (ACCHOs) in their COVID-19 response (Griffiths et al., 2021). Initially, an Aboriginal and Torres Strait Islander advisory group guided development of the National Aboriginal and Torres Strait Islander COVID-19 Management Plan (Griffiths et al., 2021). Subsequent efforts included formation of respiratory clinics in ACCHOs, rapid point of care testing, COVID-19 training programmes for remote services, and travel restrictions. Despite the Management Plan including a remit to improve data collection on Aboriginal and Torres Strait Islander people's health outcomes, Indigenous data collection issues exist as Indigenous status is often not being recorded during COVID-19 testing, vaccination, contract tracing, and ambulance, emergency, and hospital admissions (Griffiths et al., 2021).

Indigenous response

The 143 ACCHOs across Australia provide essential services for Indigenous Peoples, resulting in the COVID-19 response for urban, regional, and remote Indigenous communities (National Aboriginal Community Controlled Health Organization, 2020). The ACCHO sector emerged from 1960s activism in response to blatant racism toward Indigenous Peoples in mainstream health services. By the 1970s, ACCHOs were recognised health providers, employing Indigenous nurses for 50 years (Best, 2005; Best, 2012; Best & Gorman, 2016; Brockie et al., 2021). ACCHOs provide comprehensive primary care uniquely governed by a Board of Directors well-represented by Indigenous Peoples.

Nursing response

Kambu Aboriginal and Islander Corporation for Health in Ipswich, Queensland, is an ACCHO that opened in 1976 and has five clinics across a 60-kilometre radius (Ward, et al, 2014). Aboriginal registered nurse, Pam Mamm, was the first clinical nurse and instrumental in establishing the service (Kambu, n.d.). Kambu employed multiple Indigenous nurses (from Australia and NZ) who have been instrumental in the COVID-19 response. The Institute of Urban Indigenous Health (IUIH), a consortium of five ACCHOs in Southeast Queensland, and the Department of Health Queensland provided training for the COVID-19 response. IUIH created culturally safe messaging about COVID-19 and developed a three-phase pandemic plan (IUIH, 2020). By March 2020, Kambu converted its respiratory clinic into a dedicated site for safe and effective COVID-19 testing and patient assessments for people with respiratory symptoms. Kambu's Indigenous nurses and clinic coordinator led the development of processes for managing the clinic including rostering, booking, triaging patients, performing COVID-19 swabs, submitting reports to the IUIH and Department of Health, and coordinating COVID-19 vaccine administration (A. Bates, personal communication, 5 August 2021). The current challenge is now increasing vaccine uptake to ensure a COVID-19-free community.

Canada

Government response

Canada's lack of consistent Indigenous data in core datasets makes it challenging to compare COVID-19 rates and responses within First Nations, Inuit, and Métis populations (Skyes, 2020). The government established an Indigenous Community Support Fund to address immediate needs in First Nations, Inuit, and Métis communities ($290 million). Additional research funding ($27 million) to address COVID-19 supplemented government contributions, but only two grants ($1 million total) targeted Indigenous populations. Since then, the Canadian Institute of

Health Research (CIHR) has committed additional funding ($2 million) focused on Indigenous Peoples and COVID-19 knowledge synthesis, evaluation, and assessment (CIHR, 2020).

Indigenous response

Nearly one in five (19%) First Nations and 16% of Métis people living off-reserve with high levels of pre-existing health conditions and were not registered with a health provider; inadequate housing conditions; and lived in multigenerational households (Arriagada et al., 2020; Carling & Mankani, 2020). Compared to non-Indigenous counterparts, Indigenous Peoples reported COVID-19 significantly impacted their ability to meet financial obligations and essential needs (Arriagada et al., 2020). Six in ten Indigenous Peoples said their mental health worsened with the onset of physical distancing (Statistics Canada, 2018). Indigenous Peoples face disproportionate vulnerabilities due to high rates of chronic food-related illnesses and stress associated with post-traumatic stress disorder, overcrowded houses - particularly in neighbourhoods with food insecurity and poor healthcare access (Canadian Human Rights Commission, 2020).

In response, Indigenous Peoples strengthened regional capacities by improving access to traditional foods, medicines, and approaches to caring for one another (Saint-Girons et al., 2020). Indigenous communities exerted their sovereignty by protecting their communities despite healthcare inequities, colonisation, racism, discrimination, and elevated COVID-19 risk due to under-resourced public health systems (Arriagada et al., 2020; Jones, 2020). Urban Indigenous organisations provided essential services and food hampers to Elders and young families.

Led by First Nation leadership, a unique partnership developed between four First Nations organisations and the Province of Manitoba, establishing a First Nations Pandemic Response Coordination Team (PRCT). Swift negotiation and signing of data sharing agreements took place to establish the Manitoba First Nations controlled COVID-19 dashboard, allowing timely access to First Nations surveillance data (First Nations Health & Social Secretariat of Manitoba (FNHSSM), 2021). First Nations partner organisations consisted of: FNHSSM; Assembly of Manitoba Chiefs; Southern Chiefs Organization; and Manitoba Keewatinowi Okimakanak Inc., representing all First Nations and tribal areas in Manitoba. The PCRT also created rapid response teams, consisting of FNHSSM nurses, and other health professionals from multiple provincial jurisdictions, who were deployed into First Nation communities to assist with COVID-19 testing and contact tracing to avoid overwhelming local healthcare systems.

Nursing response

Indigenous nurses have been overwhelmed providing clinical care throughout the pandemic. Currently, they grapple with ongoing health inequities; an opioid epidemic (Canadian Centre on Substance Use and Addiction, 2020; CIHR 2020); and the discovery of unmarked graves of children who attended residential schools in Tk'emlups te Secwépemc, also known as Kamloops British Columbia (Newton, 2021). This discovery intensified pain across the country that survivors, their families, and all Indigenous Peoples and communities already felt and confirmed a truth they had long known (Newton, 2021). Current events add to the historical and contemporary trauma Indigenous Peoples face in Canada.

United States

Government response

The US Government's disregard for its Treaty obligations, historical trauma, social determinants of health, and racial inequities contributes to inadequate health and socioeconomic outcomes of Native Americans, also known as American Indians, First Americans, Indigenous Americans, and other terms (such as names specific to Hawaii or other US territories), who comprise 6.9 million of the US population (Browne et al., 2016; Gracey & King, 2009; Hatcher et al., 2020). This disregard created a perfect storm for COVID-19's impact on Native Americans. For example, the Navajo Nation, established by treaty in 1868, extends over 17 million acres and multiple states and is home to almost 400,000 tribal members. Poor access to basic housing, water, and food contributed to high morbidity and mortality rates during the COVID-19 pandemic, with 30-40% of tribal members left without electricity or running water. In this paper, only those Native Americans served by the Indian Health Service (IHS) are discussed, due to insufficient disaggregated national data.

The Indian Health Service (IHS) comprises 12 geographical areas, 37 hospitals, and 113 health centres/stations (IHS, n.d.) and provides federal health services to approximately 2.6 million

American Indians and Alaska Natives belonging to 574 federally recognised tribes in 37 states. The IHS is chronically under-resourced which made providing a comprehensive public health response to COVID-19 complicated (IHS, 2016). Further, determining unmet health needs is difficult because of the lack of data for those not currently served by the IHS.

Indigenous response

Tribal Nations' COVID-19 response differs from the remainder of the country. Tribes faced significant delays in receiving federal funding from the Coronavirus Aid, Relief, and Economic Security (CARES) Act and Centers for Disease Control and Prevention. Rather than dispersing funds through IHS, tribes submitted non-competitive grant applications – a process that delayed funding for months and allowed applications from non-Native, not-for-profit corporations (Owen et al., 2021). These delays led many tribes to take control of their communities' health. For example, in April 2020, federally recognised tribes, Cheyenne River and Oglala Sioux, initiated stay-at-home orders for their reservations and incorporated border checkpoints preventing non-residents from entering unless they were essential employees or had tribal travel permits. However, the state did not implement a similar mitigation strategy (Ortiz, 2020). As sovereign nations, tribes have the authority to protect their communities, despite being legally challenged by some state legislators (Ortiz, 2020).

Nursing response

Native American nurses comprise 60% of the nursing workforce in Tribal/Indian Health/Urban health centres and have been at the forefront of the COVID-19 pandemic (Brockie et al., 2021). These nurses are integral for mass testing, contact tracing, providing wrap-around services, distributing PPE and food boxes during isolation and quarantine, and proactively identifying high-risk individuals. Native American nurses using the Google Meets app assessed youth wellbeing in rural and remote areas at risk of depression, suicide, and substance use. Nurses on the Fort Belknap Reservation (Northern Montana) devised a vaccination strategy starting with healthcare personnel, essential workers, and Tribal Elders, prioritising Native language speakers. They also established COVID-19 housing units in each community. These grassroots efforts saved lives and resulted in a 67% community vaccination rate (K. Adams, personal communication, 12 August 2021).

Discussion

These case studies show how Indigenous communities' self-determined actions coupled with evidence-based public health protections and policies, promoted better outcomes for Indigenous Peoples. Indigenous leadership enabled supported Indigenous communities to protect their own and resulted in radically fewer cases of COVID-19 infections and deaths when compared to non-Indigenous populations among those from Aotearoa, Australia, and Canada and slowed the infection rates in the US. Indigenous health and social services' comprehensive approaches to COVID-19 prevention requires a holistic approach that recognises social determinants of wellbeing, culturally competent care, and Indigenous leadership. Indigenous nurses are often leading on the frontlines in all countries, leveraging trusted relationships with their communities to get people tested, masked, and physically distanced. Indigenous communities with access to quality data could monitor and hold their governments and health providers accountable, highlighting the importance of Indigenous data sovereignty.

Indigenous Peoples have demonstrated their resilience and ability to innovate in a pandemic. Leaning on Western-based approaches in a pandemic further entrenches Indigenous health disparities and perpetuates mistrust against government agencies. The COVID-19 pandemic has intensified long-standing social and health disparities (i.e., poverty, access to clean water, housing, comorbidity) between Indigenous and non-Indigenous Peoples, accentuating Indigenous Peoples' vulnerabilities to COVID-19. Failing to address these factors undermines strategies by governments and Western mainstream health providers often forces Indigenous communities to rally independently.

Indigenous communities established reservation-based stay-at-home policies and placed roadblocks to minimise COVID-19 transmission into Indigenous communities, supplemented by messaging and Indigenous data sovereignty strategies to monitor wellbeing. In the US, philanthropic support for traditional foods, hygiene packs, and masks contributed to holistically addressing the financial and social fallout from COVID-19 in Indigenous

communities. Well-resourced Indigenous health services, nurses, and community workers fronting Indigenous health services and campaigns are essential to improving community engagement. Despite some governments' failures, Indigenous Peoples enacted their self-determination to mobilise their communities to protect their people.

Indigenous nurses have a great deal of experience with community public health and addressing health inequity. Their knowledge is crucial for running efficient and comprehensive healthcare systems (Bourque Bearskin et al., 2020). Advancing Indigenous health equity requires Indigenous nursing practices to address systemic barriers, such as housing and food insecurity during the COVID-19 pandemic (Carling & Mankani, 2020). Indigenous Peoples often prefer care by Indigenous nurses because they embody a relational ethic of care based on respectful, authentic, and anti-racist relationships grounded in reciprocity and accountability (Bourque Bearskin et al., 2021).

The COVID-19 pandemic reinforces the need for continued advocacy to increase the number of Indigenous nurses in leadership roles to enhance access to culturally safe, responsive care. Indigenous nurses are equipped to keep communities safe with nursing knowledge, cultural expertise, and established community connections. Indigenous nurses are the nexus between advocacy, research, engagement with Indigenous knowledge systems, and decolonisation. We assert that Indigenous nurses are experts necessary for planning, preparing, and implementing policies to improve the health of Indigenous communities - especially during pandemics.

The United Nations Declaration on the Rights of Indigenous Peoples outlines Indigenous Peoples' right to data sovereignty, dictating the collection, use, and application of data (Carroll et al., 2021; United Nations, 2019). Quality, ethnically disaggregated data is required to monitor outcomes and hold governments accountable for Indigenous health equity. Data needed includes testing, incidence, and vaccine rates, morbidity and mortality rates, and other community measures (Carroll et al., 2021). Nonetheless, data collection and availability remain sub-standard for Indigenous Peoples for COVID-19 (Table 1) and tends to be deficit-oriented, lacking accuracy, relevance and Indigenous interpretation (Griffiths et al., 2021).

Infiltration of the Delta variant and other COVID-19 strains into Indigenous communities has yet to fully play out. Accordingly, it is imperative to listen to Indigenous communities and foster their self-determination. Lessons can be learned from the COVID-19 vaccine roll-out across the four countries (Table 2). For example, despite Native Americans' disproportionate COVID-19 hospitalisation and death rates in the US, they now have the highest COVID-19 vaccination rate (54% at least one dose: 46% fully vaccinated) of all groups (Read, 2021). This is predominantly due to tribes and tribal organisations overseeing vaccine roll-out in their respective communities. In contrast, Aotearoa New Zealand and Australia had very low hospital and death rates among Indigenous populations prior to the Delta variant but the roll-out of vaccinations largely controlled by Government agencies has been slow. If Indigenous specific strategies are not applied, this could disproportionately affect Indigenous peoples. Resourcing with high-trust contracting practices in health and social services will help Indigenous health services, nurses, and other community workers facilitate access to care. To genuinely improve equity, Indigenous Peoples need different responses, culturally safe strategies, and adequate resources to yield reductions in morbidity and mortality in current and future pandemics.

There are limitations with the case studies presented, as they are not representative of all actions and strategies utilised by Indigenous Peoples in the four nations. We acknowledge that Indigenous Peoples are diverse, with different pandemic experiences and government responses that could not be fully explored within the confines of this paper. Furthermore, at the time of writing, data and contexts are rapidly changing with new COVID-19 variants.

Conclusions

These case studies highlight a range of strategies by four high-income colonised countries in their responses to COVID-19 for Indigenous communities. While governments' responses vary greatly, they have underperformed for Indigenous Peoples. Indigenous communities have asserted their self-determination to lessen the gaps in service delivery, policy, data, and care provision. Indigenous nurses have used their leadership to navigate the complexities between Western and Indigenous priorities. Lessons learned from these case studies

can be helpful for future pandemics and vaccine rollouts. Genuinely addressing Indigenous health inequity during the COVID-19 pandemic requires a commitment to supporting Indigenous nurses and the self-determination of Indigenous Peoples – they know what is best for their people.

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Original Article / He Rangahau Motuhake

Steadfast is the rock: Primary health care Māori nurse leaders discuss tensions, resistance, and their contributions to prioritise communities and whānau during COVID-19

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Abstract

Historical experience from previous pandemics, together with knowledge of significant and perpetuating health inequities, led to predictions that Māori and Pacific peoples would experience greater morbidity and be hardest hit economically. *Steadfast is the rock* describes the mahi (work and actions) of three Māori nurse leaders through the first COVID-19 lockdown in Aotearoa New Zealand in 2020. Through kōrero (discussion and dialogue), this article draws on their experiences of working in a large mainstream primary health entity working across the Northland region of Aotearoa as they navigated their way within and across health sector providers and organisations to protect the health and wellbeing of whānau (families). They used their knowledge of mātauranga Māori (Māori knowledge and tradition), to ensure Māori whānau were prioritised in the pandemic response in the region. They faced adversity and resistance in a fragmented system where competition and power interfered with collaborative practices. Throughout, they remained courageous and resilient, holding true to mātauranga Māori as nurses and Māori wāhine (women) to promote equity. Yet much of their work went unnoticed and unacknowledged. Māori nurse leaders hold a necessary role in providing an equity-focused response across mainstream and Māori health providers, through their abilities to maintain relationships, find mutually agreeable strategies, and work collaboratively across the health sector.

Keywords / Ngā kupu matua: COVID-19; dialogue / whakawhiti kōrero; Indigenous / Iwi taketake; inequities / ngā korenga e ōrite; Māori; nursing leadership / kaihautū tapuhi; pandemic / mate urutā; primary health care / taurimatanga hauora tuatahi

For Māori terms, please see the Nursing Praxis Te Reo Glossary

Te Reo Māori translation

He toka tū moana: Ka whakawhiti kōrero ngā kaihautū tapuhi Māori taurima hauora tuatahi mō te āmimai, te ātete, me ā rātou mahi arotahi ki ngā hapori me ngā whānau i te wā o COVID-19

Ngā ariā matua

Nā ngā wheako o ngā urutā o tau kē, nā te mātauranga hoki mō ngā korenga e ōrite o ngā āhuatanga hauora nui, e haere tonu nei kāore he mutunga, kua ara ake ngā matapae tērā pea ka kaha ake te mate rawa me te pā nui hoki o ngā raru hauora ki ngā iwi Māori me ngā iwi o Te Moana-nui-a-Kiwa. Ko tā tēnei puka *Steadfast is the rock* he whakaahua i ngā mahi me ngā kōkiri a ētahi kaihautū tapuhi Māori i

roto i te katinga COVID-19 tuatahi i Aotearoa i te tau 2020. Nā te kōrero, ka kitea ngā wheako o ēnei tapuhi i a rātou e mahi ana mō tētahi hinonga hauora tuatahi rahi puta noa i te Tai Tokerau i Aotearoa, i a rātou e kōpikopiko nei i roto i te rāngai hauora ki te tiaki i te hauora me te toiora o ō reira whānau. I tahuri rātou ki te mātauranga Māori, kia tōia ngā urupare ki te urutā i te rohe ki runga i ngā whānau Māori. I kitea e ratou te uaua me te ātete i tētahi pūnaha kōhao rau, ko ōna tohu ko te whakataetae me te aruaru hē i te mana. I te roanga atu o ngā marama i tū māia tonu rātou, i tū pakari, me te piripono anō ki ngā kaupapa taketake o te tapuhi tūturu, hei wāhine Māori hoki, kia whiwhi painga te katoa. Ahakoa, kāore i āta kitea, kāore i mihia te nuinga o ā rātou mahi. He tūranga taketake tō te kaihautū tapuhi Māori, kia whiwhi painga te katoa i roto i ngā kaituku hauora auraki, me ngā kaituku Māori, nā tō rātou kaha ki te whakapakari hononga, ki te kimi rautaki haratau ki ngā taha katoa, ki te pāhekoheko hoki puta noa i te rāngai hauora katoa.

Introduction

He toka tū moana he ākinga nā ngā tai

Steadfast is the rock that scorns the lashing tides

The COVID-19 pandemic across the globe has disproportionately affected Indigenous Peoples, People of Colour, and poor communities (Crooks et al., 2021; Evans, 2020). At the beginning of the pandemic in Aotearoa New Zealand, in late February 2020, it was anticipated that Māori and Pacific peoples and communities would experience greater morbidity and long-term consequences from COVID-19 (Ministry of Health, 2020a). The initial Māori COVID-19 response plan (Ministry of Health, 2020b) was released on 16th April 2020, more than six weeks after the first case in Aotearoa. The plan stated:

> *It is evident from previous pandemic responses that the business-as-usual model previously used preferentially benefited non-Māori and failed to protect whānau, hapū, iwi and Māori communities from the worst outcomes. It is critical that the specific needs of Māori, particularly equity and active protection, are integral to the health and disability response to COVID-19 (Ministry of Health, 2020b, p.5).*

However, well before this plan and any governmental restrictions were implemented, Māori leaders had identified the vulnerability of their communities to COVID-19 and were beginning to take protective measures (Dawes et al., 2021). Socio-economic deprivation, compromised living conditions, existing poorer health status and age, and poor health literacy all increase risk for Māori for hospitalisation and death from COVID-19 (Dawes et al., 2021; Steyn et al., 2021). Across the health system, Māori are more likely to have negative experiences, including encountering racism, discrimination, and marginalisation at an interpersonal level as well as through institutional structures and processes (Cormack et al., 2018; Wilson et al., 2021).

While there has been criticism levelled nationally that the Government has failed to adequately involve Māori to co-design the COVID-19 response (Dawes et al., 2021), the pandemic has seen Māori leadership proactively respond to protect their communities. Reflections and research have identified that many effective and culturally appropriate strategies were locally driven by iwi, hapū, and Māori hauora (health and wellbeing) leaders in a way never seen before (Dawes et al., 2021; McMeeking et al., 2020). A Kaupapa Māori study with 23 kaumātua (Māori elders) on their experiences of COVID-19, found that despite kaumātua feeling excluded from Government decisions, iwi and whānau-initiated responses promoted some sense of rangatiratanga (self-determination): "Māori doing it for themselves" (Dawes et al., 2021, p. 532).

Nurses are often exposed to difficult and stressful working environments, which has been heightened by COVID-19. Delgado et al., (2017) describe how the very nature of nursing requires that nurses are agile in their responses and that they maintain resilience to deliver effective and quality care. However, for many Māori nurses they experience both the complexities of nursing and what can also be the additional challenges of being Māori (Hunter & Cook, 2020). In Aotearoa, Māori nurses are instrumental in leadership roles in both their community as well as workplace settings. For many of these Māori nurse leaders, navigating between the world views of the mainstream western Eurocentric system and te ao Māori is their reality. Both these world views present challenges to Māori nurses to deliver healthcare (Ruru et al., 2017). However, it is the traditional values of Māori leadership such as tikanga (cultural

protocols), manaakitanga (respect, reciprocity), and whānaungatanga (connectedness), which may have the most positive influence (Haar et al., 2017).

This article presents the perspectives of Māori nurse leaders (as co-authors) from a primary health entity (PHE) covering the large geographical area of Tai Tokerau (Northland). The PHE has a similar function to primary health organisations (PHOs) which are publicly funded through local district health boards (DHBs) to ensure essential primary health care services are delivered to people enrolled with the PHO. The majority of services are delivered through mainstream general practice and the PHO model has been strongly critiqued as failing to meet te Tiriti obligations resulting in ongoing significant health inequities (Kidd, et al., 2022). The nurse leaders found themselves in the thick of the pandemic response as they navigated their way between systems, processes, organisations, and iwi to ensure Māori whānau received the information, support, and services they required.

Approximately 70,000 (35.8%) people living in Tai Tokerau identify as Māori and more than half experience high levels of socio-economic deprivation (quintile five) (Ministry of Health, 2021). Rurality; poor infrastructure, including roading and transport; and reduced access to healthcare, food, and other community resources, add to the challenges of maintaining hauora. To compound the start of the pandemic in 2020, Tai Tokerau was experiencing a severe drought with water being transported into some communities for drinking, while Government information was driving the need for handwashing. Early on, a positive case was identified in one of the local communities, signaling that COVID-19 had well and truly arrived. The Māori nurse leaders' mahi through the pandemic has been underpinned by knowing the vulnerability of whānau and the determination to deliver equitable outcomes for Māori.

The title and whakataukī, "steadfast is the rock," intends to frame the introduction. It refers to one who is steadfast and strong in their culture, beliefs or position against all opposition. It is used in this paper to contextualise the many demands, responsibilities, and pressures experienced by Māori nurse leaders as they negotiate their roles as nurses, employees in mainstream services, wāhine Māori, mothers, grandmothers, hapū and iwi members.

Approach

The purpose of this piece is to describe the leadership activities and experiences of a group of Māori nurse leaders employed in a mainstream PHE during the first COVID-19 lockdown in 2020. Conversations with the five authors were held during August and September 2021 by face-to-face and by Zoom. Through kōrero (discussions) we captured the stories, insights, frustrations, and solutions of three of the authors in their role as Māori nurse leaders (CW, HT, and JD). The conversations were informal and fluid. Notes were taken, and the kōrero recorded and transcribed. Notes and transcripts were returned for all of us to review and we worked collaboratively to identify themes arising to write the article.

We used a narrative approach to record the Māori nurse leaders' stories to begin to collectively make sense of their experiences. We drew on the work of Caine et al. (2021) who undertook an inquiry into their own lives, as authors, reciting their stories to unpack the dominant narratives of the pandemic, describing how these dominant narratives "create[d] multiple complexities as they collide[d] with our everyday lives as embodied and situated people, as nurses, educators, and women" (Caine et al., 2021, p. 2). Additionally, we drew on Kaupapa Kōrero, an approach that embraces Māori customary practices through the oral tradition of kōrero (a conversation or discussion) (Ware et al., 2018). Kaupapa Kōrero brings together the key principles of Māori research, privileging Māori customary practice and understanding to create shared knowledge.

Both Josephine Davis (Ngāpuhi) and Hemaima Tait (Ngāti Hine, Ngāti Kere, Ngāti Pihere and Ngāi Tahu) were nurse directors of the PHE; and Coral Wiapo (Ngāti Whātua-Kaipara) was the locality network lead. Terryann Clark is Māori (Ngāpuhi) and works part-time at the PHE coordinating child and youth health promotion and part-time as an Associate Professor, School of Nursing at the University of Auckland. Sue Adams is tauiwi (non-Māori) and working closely with the PHE on a nursing workforce programme to increase the number of Māori nurse practitioners and Māori enrolled nurses working within the community. The Māori nurse leaders were part of the Executive Leadership Team (ELT) at the PHE and utilised their roles to influence practice and advocate for an equity perspective.

Ngā kōrero and arising themes

Stepping up to the task: COVID-19 reaches Te Tai Tokerau

Ki te kotahi te kākaho. Ka whati; ki te kāpuia, e kore e whati

If a reed stands alone, it can be broken; if it is in a group, it cannot

> *I felt the fear. I knew there was a real risk to our Māori community based on the knowledge of our history. As a nurse, I knew I was going out into what could be a risky situation. I felt anxiety and fear for myself and my extended family. But I felt the weight of being a Māori nurse; that our Māori community and especially our rural Māori community was going to be hardest hit and that I was walking into something huge.* [CW]

As the Level 4 lockdown became imminent (starting 25 March 2020), the Māori nurse leaders mobilised themselves and their teams into action. While the Public Health Unit (PHU) at the DHB were establishing an internal Incident Management Team (IMT) leading up to the level four lockdown, "primary care and Māori providers were crying out for local information and clinical guidance" [JD]. The PHE began organising its own response and internal team before becoming a part of the wider DHB IMT. JD, CW, and HT along with three other nurses (one Māori and two tauiwi) were a part of the internal PHE leadership team. JD described the interweaving of leadership and teamwork:

> *The six of us mostly worked from the office. We were fortunate that we all had strong working relationships prior, knew each other well, worked to each other's strengths, and flexed to fill gaps and need. All the nurses had a very strong focus on ensuring our communities were supported. Finding extra nursing staff; redeploying staff to work with providers who needed help; sourcing scrubs and PPE [personal protective equipment] for staff; addressing clinical concerns and other issues from staff and providers; developing and delivering a training for nurses and kaimahi [non-regulated health workers]; covering two 0800 [freephone] numbers; and preparing surge plans, if need overwhelmed general practice, were just some of the things we did.*

There were many demands and frustrations from all sides to get the system up and running. People were afraid, the system was not prepared, and people were at risk. Māori nurse leadership in this space was to leverage their relationships, 'roll up their sleeves', and provide practical support, coordination, processes, and procedures in the call for action.

Leveraging our networks and relationships: Whānaungatanga in a time of COVID-19

Ehara taku toa i te toa takatahi taku toa takitini taki mano e

Success is not the work of an individual but the work of many

A central concept in te ao Māori is whānaungatanga, the process of engaging and reciprocating a sense of connectedness in relationships. Regular Zoom hui were held with key stakeholders and external staff to provide information, support, and to hear and be able to escalate their "on-the-ground concerns" [JD]. People were receiving their communications about COVID-19 from TV, radio, and mainstream and social media:

> *We spent much time debunking erroneous media messages about what was or was not happening. In addition, the landscape changed frequently, and we were all learning. Communications were changing daily and sometimes several times within the day. You had to get judicious about the priority of the messaging as message fatigue was resulting in increased anxiety and frustration. Maintaining communication was key.* [JD]

Early in the pandemic, when providers were beginning to test for COVID-19, the Māori nursing leadership team were asked to support a Māori health provider in a rural area, which had just a few nursing staff and kaimahi. Because of connections with the local hapū, one of the Māori nurse leaders brokered the relationship with the provider to support the COVID-19 response in that community. JD highlighted the importance of prior relationships to enable a swift response:

> *"As a Māori wahine [woman], she had the whakapapa [iwi connections] and relationships. She was seen to be a safe pair of hands who had the trust of the community and was able to break down the barriers and negotiate with them [the provider]."*

Despite some challenges, HT reflected that, "I never lost sight of my responsibility as a leader to continue to engage and maintain relationships." She was able to move fluidly between the PHE, the provider, and whānau.

Māori nurse leaders utilised their problem-solving skills, leveraged their relationships and their leadership to influence and ensure that COVID-19 testing sites and protocols were established for safe staffing and to create a better experience for whānau. When they saw something that was not working and instead putting people at risk, they developed alternatives and demanded these be changed. HT noted they were able to be influential due to their mana-enhancing practices:

> *We walked into the space in an honouring and acknowledging way, to mobilise the resources with a collaborative frame. Our aim was that every person who came through a site was dealt with in the best possible way. Kaumātua and Kuia [female elders] were looked after, we shaped our conversations so that people had understanding. They felt cared for and when they left, they felt informed.*

Across the region, the Māori nurse leaders were actively engaged in working with providers and iwi to develop projects to support Māori whānau. Their work included training and supporting kaimahi; project design, planning and evaluation and ensuring whānau were well connected to other community and health resources and services. Whanaungatanga was essential to the success of their work.

Creating pandemic Tikanga protocols

Kia mau ki to Māoritanga

Hold fast to your Māori heritage

One of the first requirements of the pandemic response was to 'stand up' (a termed coined during the pandemic to mean set up) COVID-19 testing stations. Considerable fear was present within the community from the outset of the pandemic. CW noted widespread distress:

> *The Māori health workforce were themselves fearful, as many were highly vulnerable to COVID-19 due to age, pre-existing health issues and risk of infection to their own whānau. The kaimahi became frontline workers, particularly at COVID-19 testing sites. Staff often faced considerable challenges when interacting with whānau who were stressed and scared, and [the staff] were, at times, being verbally abused.*

To protect the staff, HT introduced tikanga protocols. At community-based assessment and testing stations for COVID-19 (known as CBACs), each site was initially blessed, and every morning began with a karakia to "ensure everyone who worked there went home safely and well" [HT]. A karakia is a prayer or incantation used to invoke spiritual guidance and protection and to promote goodwill amongst a group of people. HT reflected on the unifying effects of tikanga:

> *Uniting with others made it easy to implement tikanga protocols. It also normalised these practices to shape and sustain the way we operated each day. It gave us a sense of togetherness and purpose.*

At the end of the day, a tikanga de-robing process (of PPE) and showers (where available) took place, so workers went home cleansed and well:

> *As a nursing professional at the end of the day I felt a sense of duty about sending everybody home well… We had a protocol for having a shower, changing our clothes and leaving behind our shoes. It made sense to me that the other protocol was for our wairua [spirituality]. We started the day with a karakia [prayer] and so we should end the day that way. From a nursing perspective and tikanga Māori, wairua is so important.* [HT]

CW, who helped with testing at this site, described how having "karakia and tikanga wrapped around us, really helped me as a Māori nurse to alleviate some of the fear and to feel safe and protected."

Back at the PHE office, karakia was held by Zoom every morning at 8.30 for all staff. This helped ensure staff "remained connected and informed in the fast-paced fast-moving nature of COVID information and strategies" [JD]. It also enabled those working from home to catch-up with those working in the communities. Staff working behind the scenes at the PHE, and often from home, found that hearing stories from the Māori nurse leaders about what was happening across the region, helped their "colleagues understand the reality, rather than receiving their knowledge from the media." Upholding tikanga that kept people safe, kept them informed and acknowledged the work of all people in the pandemic

was vital for teams to remain safe physically, emotionally, and spiritually.

Mistrust, agendas, and money: Conflicting worldviews

He ora te whakapiri, he mate te whakatakariri

There is strength in unity, defeat in anger/division

The Māori nurse leaders emphasised the complexity of both the health system response and their positioning at various levels of the health sector, from local to regional and national. They described their involvement with many people across multiple organisations. These included the Ministry of Health, the DHB, and the DHB's public health unit, the PHE, iwi, Māori health providers, mainstream general practices, and community and whānau. Within these structures, the nurse leaders were also supporting the nursing workforce.

JD portrayed the complex interpretive mahi in their roles:

> *Many different agendas were circulating and there was constantly changing information and advice on a daily basis. People from the different organisations had different ideas as to what to do next and often these were conflicting. It felt like we were negotiating and advocating for one group; going to the next and setting the picture and reframing; then going back, interpreting, renegotiating and reframing, trying to find a way forward; and all the while ensuring we met the needs of whānau.*

They identified how at times they felt 'caught in the middle' and continued to meet resistance to work as a collective. CW noted the power struggles that undermined the response:

> *We had to negotiate the politics, and often the tensions between and within the groups made this challenging. We met resistance from the DHB and from general practice. It is innate for us as Māori to work together and collaborate. There was network resistance because while the Māori health providers needed help, they still wanted to maintain control of their role as provider, which made it a difficult space for us to negotiate within. It just seemed to us like what was the most straightforward and natural response was constantly being met with resistance from others.*

Specifically, the Māori nurse leaders noted the tensions between mainstream/Western services and Māori health/Iwi providers. Particularly they highlighted the challenges for the PHE whose members were mainstream general practices as well as Iwi and Māori health providers. Within the PHE, JD described how they were "often justifying the Ministry of Health's rationale for equity [to mainstream providers] and providing for whānau Māori," highlighting the role of institutional racism and resistance when trying to divert resources from mainstream to Māori providers. CW described how mainstream practices appeared "suspicious" of the health system's funding mechanisms through the PHE and seemed to have "little understanding of the PHE's role in supporting and prioritising Māori communities and whānau." Overall, there was "little trust in the system."

A backdrop to the tensions noticed between mainstream and Māori health was that the context that the pandemic had perhaps exacerbated racism towards Māori in society, fuelled in part by the negative portrayal of Māori by the media. CW illustrated how local Māori were protecting their communities from people outside their area bringing in COVID-19:

> *For example, Māori were taking ownership and protecting our communities. The media said that Māori were making roadblocks, but in fact Māori would describe them as checkpoints, where they were talking to people and informing them about keeping their communities safe. That finger-pointing and bringing Māori to the front in terms of not conforming and going rogue was how the media portrayed it.*

The nurse leaders talked about "patch protection" and the "powerplay" going on across the sector. For example, they recalled regular discussions at meetings where funding was hotly debated; how providers were losing income and who should fund the shortfall; how funding from non-delivery of contracts could be diverted to COVID-19 work; and how and by whom, decisions of COVID-19 funding, and expenditure were being made.

HT spoke of the work she had done in setting up a COVID-testing station for a Māori health provider who had been funded to do this but appeared not to have the capacity nor capability. She "played a very careful balancing act" to maintain the relationships

between herself and the kaimahi, the manager of the provider, the PHE, and DHB. She noted her careful approach to navigating this situation:

> *I was very proactive and assertive in places where I could without upsetting the dynamics and blowing the whole operation, because the dynamics were too delicate and the situation was too risky to upset.*

The Māori nurse leaders agreed there were occasions where they experienced "horizontal violence" as they were caught up in the politics with providers who did not share their understandings of mahitahi (working together). For instance, the PHE staff who were diverted into the community to assist at DHB testing sites were told they had to bring their own PPE. "You're not our staff, so we don't need to provide you with anything," they were told. Māori nurse leaders resorted to carrying extra PPE gear in their cars to ensure all PHE staff were safe. Such acts of exclusion and bullying could easily "suck the energy and compassion out of our work." However, it was their professional integrity and responsibility to their communities that helped them "keep it all together."

Resilience, courage, and manaakitanga

Whakapūpūtia mai ō mānuka kia kore ai e whati

Cluster the branches of the manuka so they will not break

Despite the challenges, tensions, and even a "level of violence" experienced, they continued in their work, guided by the principle of manaakitanga. Manaakitanga is a central Māori value that expresses respect for others, responsibility, and reciprocity; and ultimately the Māori nurse leaders were focused on protecting the health of communities, regardless of the burden placed on them as individuals:

> *I am not interested in praise. I'm just talking about let's get on with that work, let's get on with that work as professionally as possibly. I think from a nursing point of view, it takes courage as a Māori nurse to stand up to that level of violence, and to have to repeatedly stick up for myself and the community… If it is the right thing to do then I just go and do it.* [HT]

CW highlighted her sense of accountability during an incident where she was challenged by a Māori leader about the (lack of) work of the PHE during the pandemic, and, by inference, the nursing team:

> *I think I was stepping into that space as a wahine Māori and saying, "No, I'm not going to stand by and let you say what the organisation has and has not done." I think we were all courageous; and part of that is we feel accountable to our collective and our communities.*

JD continued with the theme of courage:

> *I think that word courage is something that all the Māori nurse leaders during the pandemic displayed. We were all leaving our homes and families to care for everyone else's whānau. We had to assert ourselves with hierarchy that we would not usually have to. I think we all were constantly pulling out the 'courage card' just to make things happen, to do what we needed to do despite others thinking differently.*

For the Māori nurse leaders who were moving between sites across the region, the lockdown posed challenges to their wellbeing and safety. Travelling times were long (several hours in one direction), public toilets were all closed, and there was no food available on the road. CW depicted the many discomforts:

> *We stood in the rain, it was wet and windy, behind masks and at the required distance from the car to try and take details of whānau who had their window wound down just a little. There were no toilets, no food available. We were drenched and cold by the end of the day and had a long journey home.*

The Māori nurse leaders epitomised resilience, courage, and commitment. They witnessed many examples of poor process, bullying, patch protection, and a lack of willingness to share resources. Despite these obstacles, Māori nurses advocated, negotiated, and facilitated changes to the system as expressions of manaakitanga.

Whakaiti: Responding with tika, pono, and aroha

Kāore te kumara e kōrero ana mo tōna ake reka

The kumara does not brag about its own sweetness

Tika, pono, and aroha (integrity, respect, and compassion) were values central to the work of the Māori nurse leaders. They described how they worked "quietly" to achieve the outcomes required necessary to promote the health and wellbeing of

whānau in a way which maintained the respect and mana (prestige, honour) of Māori whānau. They discussed the concept of whakaiti, which HT described as being "inconspicuous and unnoticed as we go about our work." CW added how their "intangible actions were not visible, but what was seen was the data, the numbers, and not our work." Yet they believed that their work made a considerable difference. In the new PHE pandemic planning document there is no acknowledgement of the relational work of the Māori nurse leaders; of the tika, pono, and aroha they brought to their work.

JD's strategy was to "fit myself into the gaps" to ensure the knowledge and directives of the DHB Public Health Unit and the ELT of the PHE moved appropriately through to the providers and the community. She said, "there was a lot of quiet doing." They discussed how they used their "wisdom to ensure the safety of their team and the community," showing their compassion and care. HT likened this to the role that Māori wāhine fulfil as kaikaranga on a marae, where, in addition their role to call visitors onto the marae, they observe tikanga and ensure the mana of all is respected. Here, they too identified that the skills of problem-solving and critical thinking from their nursing background helped with their decisions and actions as leaders. As HT recounts:

> *When you do your work properly, we are really economical. We don't need much to look after ourselves, we are not looking for praise, we just want to see the job done well. And that was the prize to get to the end of the day without any incident and to manage our situation challenges with some level of professionalism to make sure that every person who came through that site was dealt with in the best possible way.*

Having something to celebrate and some joy through these difficult times was important. HT describes:

> *One of our fondest moments of our workday was to come into the office at end of day, we had a handwritten dashboard, and every day we would count up the number of swabs and the work that was completed for the day, and that was our celebration.*

2020 was the International Year of the Nurse and celebrated on 12 May. The nursing leadership team across the sector had planned a rolling schedule of opportunities that celebrated, showcased, and acknowledged the contribution and everyday mahi of the nurses. These opportunities were interrupted but it was important that the Māori nurse leaders demonstrated the respect and honour they felt for the nurses, despite the challenges of how to accomplish this acknowledgement. The team put together hampers and delivered them to every hauora (health) provider, mainstream and Māori, across Tai Tokerau:

> *One nurse rang on behalf of her team to talk about how they as nurses in a Māori provider had supported their community with regular care, swabbing, education, and aroha, and how it wasn't even acknowledged on [International] Nurses' Day. I asked, "Did you get the hamper? You were all out and about and I left it at the front desk. We see your work, we know what you are doing for your communities." It's a small something to say 'thank you.' Several days later I got an email. They had got together as a team, had morning tea, and shared their hamper. It was an opportunity for them to connect, share, and kōrero. They said they had "gotten some space to breathe."* [JD]

Additionally, HT put together a video of nurses from across the region to celebrate International Nurses' Day. She said, "It was a record of our fun that we also had. It gave us a little bit of joy."

TC reflected on the conversation:

> *Those were moments of joy when we were acknowledging each other. Politically we couldn't speak up about many things. It is good to hear you talking about all the things you were doing behind the scenes, "fighting the fight". But that whole whakaiti, not talking stuff up, not being acknowledged for what you were doing; so much of what you were doing was not seen. And it makes me sad to hear of all the challenges you faced, at times how you were treated, and the bad behaviour. But that happens when people are pushed and feeling anxious and blamed. How do we respect each other's contributions, so that we don't have to keep being courageous and pushing back?*

So much of the Māori nurse leaders work was unseen by DHBs, the PHE, general practices, Māori health providers, and the general public. Using Māori values of tikanga, whānaungatanga, and manaakitanga were central to the success of protecting the health and wellbeing of their communities.

Implications and recommendations

Tini whetu ki te rangi, he iti to pokeao ka ngaro

A small cloud overhead will obscure the stars

These findings from this kōrero provide valuable lessons in how Māori nurse leaders negotiated multiple spaces, places, and roles within their organisation to uphold the mana of whānau Māori and facilitate a more equitable system. There were times when Māori nurse leaders were fierce advocates, other times careful negotiators and strategic politicians, all while maintaining their relationships, responsibilities, and the sense of joy at making a difference. There are some important lessons here that future pandemic strategies need to consider.

First, pandemics can magnify inequity for Māori communities (Steyn et al., 2021; Wilson et al., 2012). Efforts to address inequities requires layers of Māori leadership at government, district health boards, primary health organisations, general practices and Māori health providers. Nursing leaders hold necessary roles in promoting equity and holding racism to account across the healthcare sector, when the sector is scrambling to respond from a systems, clinical, and coordination perspective (Jenkins et al., 2021; Kidd et al., 2020). The default emergency system response in the pandemic was not to meet the needs of whānau Māori or an equity focused response, despite the rhetoric. This lack of oversight also highlights the need for Māori nursing leadership within mainstream and Māori health services to ensure these tensions are addressed.

Second, Māori nurse leaders bring with them exceptional skills that combine problem-solving, critical reflective practice, experience, and mātauranga Māori, demonstrating too their socio-political awareness (Kidd et al., 2020). Māori nurse leaders showed how they "observe[d] and use[d] their wisdom to fill the gaps and spaces to provide a culturally safe environment". They have the ability to move through and across layers of organisation and bureaucracy and within whānau and communities in a non-threatening but determined manner. Whānaungatanga and the ability to maintain relationships, find mutually agreeable strategies, and remain compassionate are essential skills to promote equity.

Third is the concept of whakaiti, to quietly and solidly get on with the task, while upholding the responsibility of leadership for whānau wellbeing (Haar et al., 2019). Māori nurse leaders are held accountable from multiple levels: their employer, Māori health colleagues, whānau and communities. Much of this nursing work is unseen, stemming from a responsibility for collective wellbeing and working for the greater good, without exclaiming what they have done and what they have achieved. Māori nurse leaders also saw many examples of poor practice and institutional racism that threatened the wellbeing of whānau during the pandemic (Steyn et al., 2021).

Incidents left the nurse leaders personally vulnerable to bullying, exclusion, and burnout. Rather than engaging in patch-protection or attributing blame, nurse leaders nurtured relationships and collaborations to try and maintain momentum during the pandemic. The support of Māori nursing leader colleagues and Pākehā (white European)/tauiwi allies are necessary to enable this quiet determination to continue (Hunter, 2019). Maintaining Māori nursing leadership in this space requires a strong and unwavering focus on the 'big picture' and good outcomes for whānau.

Finally, the healthcare sector responded in how it was designed - based on neoliberal, individual, and competitive contract-driven responses (Health & Disability System Review, 2020). The fragmentation of the health system, competition, and power and control was evident through the conversations with the Māori nurse leaders. It is difficult to have genuinely collaborative pandemic responses when low trust contracting practices are maintained, with large mainstream health organisations facilitating and maintaining control over resources and funding. This stranglehold created resentment by privately-owned general practices and Māori health providers with Māori nursing leaders often facing criticism from many services.

The COVID-19 pandemic has provided a uniquely stressful working environment for all health workers in Aotearoa New Zealand, pushing people, resources, and systems to the limit. We need to move towards a collective health system that facilitates collegiality and cooperation, creating trusting and respectful relationships with whānau to protect and promote their health and wellbeing. Māori nurse leaders are well positioned and well connected with their communities. This is not unique to the Māori nurse leaders in this primary healthcare entity and their stories will resonate across many other areas of

Māori nursing leadership. Together, they have shown they are steadfast as a rock, resilient, and courageous. It is now time to acknowledge their work underpinned by mātauranga Māori and give support and mana to their leadership skills and roles. We welcome the health and disability system reforms with its renewed and genuine commitment to equity, and the necessity of valuing the contribution of Māori nursing leadership.

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Original Article / He Rangahau Motuhake

Inequities and perspectives from the COVID-Delta outbreak: The imperative for strengthening the Pacific nursing workforce in Aotearoa New Zealand

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Abstract

The COVID-19 Delta August 2021 outbreak in Aotearoa New Zealand initially affected Pacific communities more than any other group, spreading later and rapidly to Māori. From the outset of the global pandemic, historical knowledge of health inequities and the adverse effect of previous epidemics and pandemics, signaled that Pacific peoples, and Māori, would be disproportionately affected by COVID-19. The purpose of this article is to provide an overview of the COVID-19 pandemic in relation to Pacific communities and to begin to capture the learnings for the health system and the Pacific nursing workforce. We use data to show the inequities present before and during the pandemic and highlight the opportunities that were missed early on for prioritising Pacific communities. As nurse leaders, involved with supporting and promoting the Pacific nursing workforce, we reflect on the nursing response to COVID-19 in those Pacific communities, and consider the contribution of Pacific nurses and how we support and strengthen the Pacific nursing workforce in Aotearoa now and in the future.

Keywords / Ngā kupu matua: community /hapori; COVID-19; dialogue / whakawhiti kōrero; inequities / ngā korenga e ōrite; nursing / mahi tapuhi; Pacific / Moana-nui-a-Kiwa; primary health care / taurimatanga hauora tuatahi

Te Reo Māori translation

He korenga e ōrite me ngā kitenga mai i te horapatanga o te mate urutā o COVID-Delta: Te whakahau kia whakapakaritia te ohu kaimahi tapuhi Moana-nui-a-Kiwa i Aotearoa

Ngā ariā matua

I tino pā nui te horapatanga mate urutā COVID-19 i Aotearoa ki ngā hapori Moana-nui-a-Kiwa, he kaha kē atu i te pānga ki ētahi atu momo iwi, ā, nō muri mai ka horapa nui, ka tere horapa hoki ki a ngāi Māori. Mai i te tīmatanga o te mate urutā o te ao, nā te mātauranga mō ngā korenga e ōrite o ngā āhuatanga hauora nui, kua ara ake ngā matapae tērā pea ka kaha ake te mate rawa me te pā nui hoki o ngā raru hauora ki ngā iwi o Te Moana-nui-a-Kiwa me ngā iwi Māori. Ko te whāinga o tēnei tuhinga he whakarāpopoto i te pānga o te urutā o COVID-19 ki ngā hapori o Te Moana-nui-a-Kiwa, kia hopukina hoki ngā akoranga mō te pūnaha hauora me te ohu kaimahi tapuhi Moana-nui-a-Kiwa. Ka whakamahi raraunga mātou kia kitea ngā kōrenga e ōrite o mua, i waenga hoki i te mate urutā, kia whakatairangatia hoki ngā whāinga wāhi kāore i tutuki mō ngā hapori Moana-nui-a-Kiwa He kaihautū tapuhi mātou e tautoko ana, e whakatairanga ana i te ohu kaimahi tapuhi Moana-nui-a-Kiwa, ā, ko mātou tēnei e huritao nei mō te urupare tapuhi ki te COVID-19 i roto i aua hapori Moana-nui-a-Kiwa, me te huritao i te āwhina o ngā tapuhi Moana-nui-a-Kiwa, me pēhea hoki tā tātou tautoko, whakapakari hoki i te ohu tapuhi Moana-nui-a-Kiwa i tēnei rā, ā, haere ake nei.

Introduction

Globally, COVID-19 has disproportionately and adversely affected the health and wellbeing of population groups already vulnerable and marginalised in society – Indigenous, Black, poor – those who experience inequities in health outcomes and access to quality health services (Evans, 2020). Institutional racism remains across our systems of governance and state control (Health & Disability System Review, 2020). The expectation from the outset was that Māori and Pacific would experience inequitable outcomes and more significant long-term consequences (Ministry of Health, 2020a), based upon contemporary and historical knowledge of poor health outcomes, persisting health and social inequities, and previous pandemics (Steyn et al., 2021; Wilson et al, 2012). The devastating effects of the 2019 measles epidemic in Samoa showed how the spread of myths and misinformation through social media together with the rise of anti-vaxxers and delayed Government response, compounded actions to protect the communities (Boodoosingh et al., 2020). Despite the warnings, 18 months into the pandemic, a COVID-19 Delta community outbreak in August 2021 (the Delta outbreak) has resulted in 818 (65%) of all new positive cases being Pacific (Ministry of Health, 2021, 30 Sept).

This article is intended as the beginning of a much wider conversation to explore the role that Pacific nurses have played to ensure the safety, protection, and wellbeing of their Pacific communities. Through the COVID-19 pandemic Pacific nurses have worked at testing stations, contact tracing centers, vaccination centres, managed isolation facilities (MIQ), health helplines as well as continuing their everyday work in hospitals and the community. The collective worldview of Pacific peoples means that family and community is prioritised over the individual (Ioane et al., 2021). As such, Pacific nurses not only fulfil their nursing role, but under the principles of respect, reciprocity, and collectivism, undertake a range of other support and caring work within their communities. Yet Pacific nurses are underrepresented being only 4% of the nursing workforce compared to Pacific peoples comprising 7.4 % of the population in Aotearoa (Nursing Council of New Zealand, 2019). The toll of this pandemic on the Pacific nursing workforce, we believe, is considerable.

Approach

This article begins with a brief introduction to the Pacific peoples of Aotearoa and the Pacific nursing workforce. We provide an overview of the COVID-19 pandemic in relation to Pacific communities, with a particular focus on the August 2021 Delta outbreak and the evident inequities. The data point is taken as 30 September 2021 when Auckland was in its 7th week of Level 3 lockdown (having had four weeks at Level 4), and the remainder of the country was at Level 2.

We then share a conversation, from a nursing leadership position, reflecting on Pacific nurses' involvement in the pandemic. We draw on the concept of talanoa as a research framework that affirms Pacific thinking, language, and culture; challenges Eurocentric institutional systems; and enables the co-creation of knowledge (Matapo & Enari, 2021). We intend this conversation to open-up lively talanoa within the health and education sector. We argue that this pandemic has shown the imperative that now, more than ever, we need to value, support, invest in, and grow the Pacific nursing workforce, if we are going to address inequities and improve health outcomes for the Pacific peoples of Aotearoa.

Pacific peoples in Auckland

Pacific Peoples are a diverse population made up of distinct cultures from various Pacific Islands. In Auckland, the Pacific population is mostly New Zealand born, predominantly young, and highly urbanised (StatsNZ, 2018). 16% of the Auckland population are Pacific, however, the Pacific nursing workforce in Auckland is just 8.6% of the total nursing workforce (Nursing Council of New Zealand, 2019), with only 5.2% working in primary health care settings. Table 1 shows the Pacific ethnic groups of the Auckland population and the Pacific nursing workforce.

As collective communities, Pacific peoples tend to live as communal and intergenerational family groups and often across several sites or homes. Pacific communities are connected through faith-based networks where church gatherings and services are central to family support and well-being. Church ministers, pastors, and Pacific community leaders are highly influential in directingtheir communities in all matters, including how to respond to COVID-19 (Ministry for Pacific Peoples, 2021). Pacific

knowledge and cultural protocols are forefront and contrast dominant western worldviews (Ioane et al., 2020).

Table 1: Pacific people living in Auckland and Pacific nurses working in Auckland by Pacific group (StatsNZ, 2018; Nursing Council of New Zealand, 2019).

	Auckland Pacific groups (%)*	Pacific nurses in Auckland (%)
Samoan	118,503 (48.6%)	341 (26.3%)
Tongan	62,403 (25.6%)	242 (18.7%)
Cook Island Māori	46,668 (19.1%)	99 (7.6%)
Niuean	23,088 (9.5%)	78 (6%)
Fijian	11,202 (4.6%)	448 (34.5%)
Tokelauan	2,406 (1%)	18 (1.4%)
Other Pacific Peoples	7,485 (3.1%)	71 (5.6%)
TOTAL	**243,966**	**1297**

*Percentages add to more than 100%. When a person reported more than one Pacific ethnic group they were recorded in both. Ethnicity is prioritised as follows: Māori; Pacific; Asian; Middle Eastern, Latin American and African; NZ European/Other

During the 1950s and 60s, immigration of Pacific peoples to Aotearoa New Zealand increased considerably to fulfil a labour crisis. However, an economic recession in the 1970s saw high unemployment, with Pacific peoples the subject of discriminatory and racist governmental and police initiatives to limit immigration and forcibly remove overstayers (Ardern, 2021). On 1 August 2021, the Government issued an apology for what has become known as the Dawn Raids era. Ardern stated, "inequities that stem from direct and indirect discrimination continue to exist" and "lives on in the disruption of trust and faith in authorities" (Ardern, 2021, para 6 & 7).

Prior to the start of the pandemic, Pacific communities were at social, educational, environmental and economic risk (Ioane, et al., 2021). Many Pacific people live in socio-economic hardship. Across the greater Auckland region, which is divided into three district health board (DHB) areas, each DHB has its own distinct population demographics and deprivation. Counties Manukau DHB covers South Auckland and has the largest Pacific population (Table 2). It also has proportionally more Pacific people who are the most socio-economically deprived with 74% living in quintile five (Ministry of Health, 2021, a). The compounding effects of material deprivation associated with living in poorer neighbourhoods, with fewer health, educational, and social resources, and greater likelihood of environmental harms, leads to poorer health and social outcomes (Health Quality & Safety Commission [HQSC], 2021; Walsh & Gray, 2017).

Pacific peoples and COVID-19

The first COVID-19 case reached the shores of Aotearoa New Zealand on 28 February 2020. From then until the August 2021 Delta outbreak began, a total of 2987 COVID-19 positive cases had been identified, of which 213 (7%) were Pacific. A cluster outbreak in August 2020 had a higher proportion of Pacific (62%) and Māori (21%) (Sadler, 2020) and affected a younger age group than the first outbreak (Steyn et al., 2021). Four deaths occurred. The learnings from the August 2020 cluster were clear that both Pacific and Māori communities fare worse and need to be prioritised for protection strategies and vaccination. Yet, despite these early warnings, the burden of the August 2021 Delta outbreak has been experienced by Pacific communities in the Auckland area.

Table 2: Population of Auckland DHBs, Pacific population and percentage of Pacific population living in quintile 5.

DHB	Total DHB population (Projected 2020/21)	Pacific population (%)	% of Pacific people in quintile 5
Counties Manukau	578,650	125,240 (22%)	74%
Auckland	493,990	55,800 (11%)	45%
Waitematā	628,770	45,200 (7.2%)	22%

Data from: Auckland DHB, 2020; Lees et al., 2021; Ministry of Health, 2021a; Waitematā DHB, 2019

The first case in the Delta outbreak was announced on 17 Aug 2021 and by 30 Sept 2021, 1249 positive COVID-19 Delta cases had been identified, of which 818 (65%) were Pacific (Figure 1) (Ministry of Health, 2021b). While the Delta outbreak began with cases and their contacts within the Waitematā DHB area, in people of New Zealand/European ethnicity, the Delta virus soon spread across the Auckland DHBs and through the Pacific communities. Racism was evident as a Samoan church, at the centre of one of the clusters, experienced racist remarks through social media (Corlett & McClure, 2021). By 30 September 2021, 785 (63%) cases resided in Counties Manukau; 219 (17%) in Auckland; and 228 (18%) in Waitematā. Just 17 cases were reported in Wellington.

At the start of the Delta outbreak, Pacific vaccination rates were 12-14% lower than for non-Māori/non-Pacific (Ministry of Health, 2021b) (Figure 2). Data released on 8 September by the Ministry of Health showed that of the 855 positive cases, 701 (82%) were unvaccinated (Cheng, 2021). Of the 88 people who required hospital care 84 (95%) were inadequately immunised, with just 4 patients receiving one dose at least two weeks before they tested positive (Cheng, 2021). This reflects data on Delta from the United States (Dyer, 2021). Risk modelling from the August 2020 outbreak in Aotearoa calculated that a 55-year-old Pacific person had the same level of risk for hospitalisation as an 80-year-old New Zealand European (both without co-morbidities) (Steyn et al., 2021). They concluded, "Structural inequities and systemic racism in the healthcare system mean that Māori and Pacific communities face a much greater health burden from COVID-19" (Steyn et al., 2021, p. 28).

Figure 1: Charts show total COVID-19 case numbers by ethnicity comparing August 2021 Delta outbreak with all cases previously recorded in Aotearoa New Zealand (Ministry of Health, 2021b)

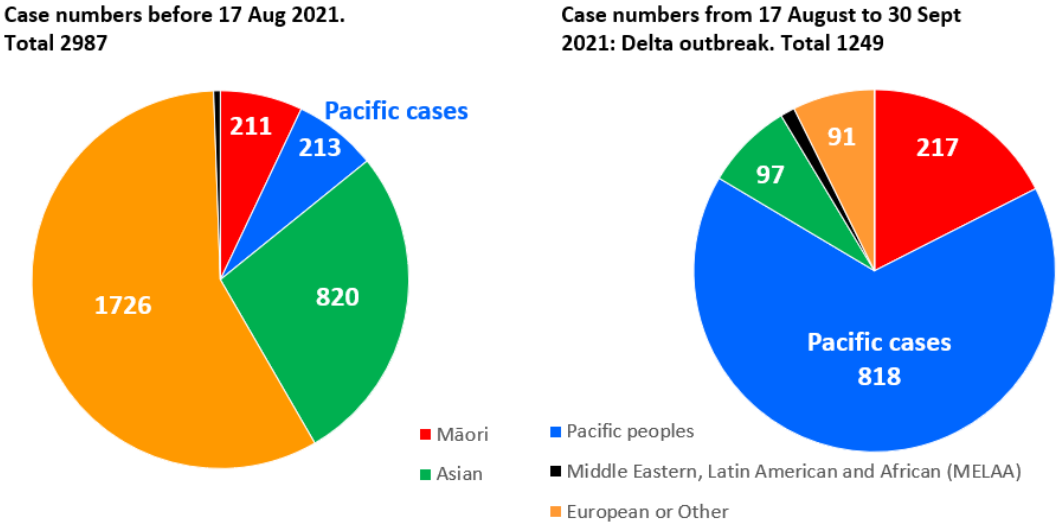
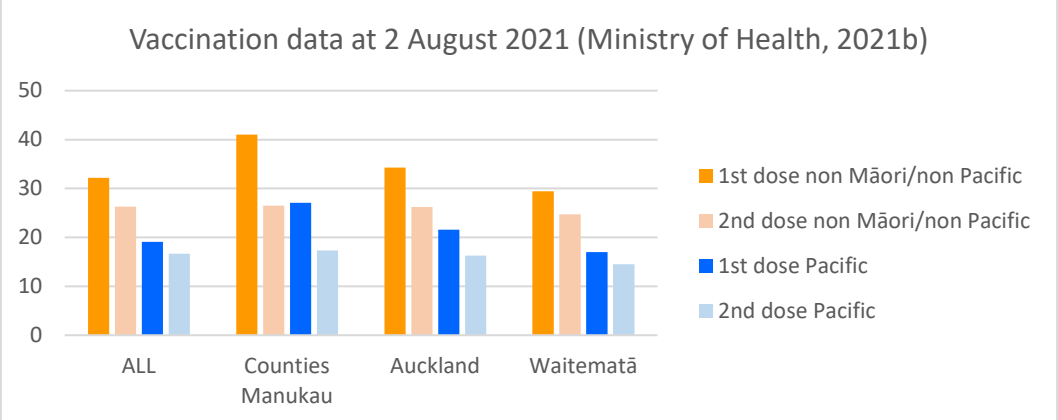


Figure 2: Chart showing vaccination data for one and two doses for the whole of New Zealand and across the three Auckland DHBs comparing non Māori/non Pacific with Pacific



Talanoa: The Conversation

In this section, our authors, Abel Smith and To'a Fereti, together with Sue Adams, share a conversation, based upon talanoa. Abel and To'a talk from their perspectives as Pacific nurses and leaders, rather than from their organisational positions. Abel is of Fijian descent and has worked as a clinician, educator, and manager in the Fijian, Australian, and Aotearoa New Zealand health care sectors over the last 35 years. He is an Aniva alumni and is currently working on his DHSc at AUT on the Pacific nursing workforce. To'a is Samoan who trained as a nurse in New Zealand. She has held positions as a clinician, educator, and manager in the New Zealand health care sector, and has worked in Samoa and Fiji. To'a is the President of Pan Pacific Nurses Association, an Aniva Alumni, and previous Chair of the Nursing Council of New Zealand. She brings operational, governance, strategic, and leadership to the discussion and is working on a PhD on Pacific leadership, also at AUT. Sue is a white/European academic and co-leader of the National Enrolled Nurse (EN) and Nurse Practitioner (NP) Workforce Programme, funded through the Ministry of Health. One of the key objectives in this Programme is to support the development of the Pacific nursing workforce, particularly in primary health care and community settings. We held several talanoa (discussions) over Zoom (due to the COVID-19 restrictions), in September and October 2021, transcribed, and then together identified the themes.

History repeats: Resilience and reciprocity

SUE: History tells us that Pacific peoples have poorer outcomes when infectious diseases spread through communities, such as measles, Strep A sore throats and rheumatic fever, the 'flu pandemic [H1N1] in 2009. How well prepared do you think we were to protect our Pacific communities in a pandemic, particularly for our Pacific nursing workforce?

ABEL: We weren't prepared for the pandemic. We have the capability within the Pacific nursing workforce and experience of working through various pandemics, such as 'flu, measles, strep throat, but we do not have the capacity and have not grown our workforce.

TO'A: The pandemic has made the gaps in workforce highly visible. The current pandemic provides an opportunity for organisations to look at the need to invest in the Pacific workforce. We're needed in a time of crisis, but when that is over, our workforce issues are often forgotten. The pandemic isn't going to go away anytime soon and the worst hit, as always, are Māori and Pacific. This time we have to have a longer-term plan and vision for our workforce.

ABEL: The Pacific nurses though have not had time since the pandemic started, to breathe, refresh refocus, and rebuild, and that's an issue. As nurse leaders, we can foresee the burnout, though I don't think our workforce readily admits to this burnout. Burnout is covert. In Pacific circles we put our community first, our families are everything, and to admit burnout is about us, the individual, and not about our community.

TO'A: I think you are right, Abel. It sits in our heart and our passion for our communities to heed the call and keep going. We may not see this as burnout, we just carry on because we know it is what we need to do for our families and communities.

ABEL: When you ask Pacific students and new nurses, "What do you want to do in your career?" A lot of them state that they want to look after Pacific people, that they want to give back to their community. This is reciprocity and it is about the community's health rather than an individual.

A collective responsibility: Serving the community

SUE: This pandemic has really highlighted the necessity of a workforce that reflects the population served. We have known for many years the importance of a workforce with cultural and linguistic skills to improve health outcomes for our Pacific communities. Again, through this pandemic, nurses have been central in developing appropriate ways of working with Pacific communities to protect and promote health and showing how they bring joy and love to their work.

TO'A: Pacific nurses are very involved in this pandemic across the sector providing education, testing, contact tracing, working at MIQ facilities, Healthline, vaccination centres, health clinics, supporting families, social needs, and so on. But we haven't done it in isolation, we are and need to be engaging and working with our community because community engagement is the essence of our work. As professionals we don't want to and shouldn't be seen as leading this, but instead the Pacific communities must lead, with us in a supportive role.

ABEL: For many Pacific nurses, we view nursing as our calling. We come to this pandemic, not as leaders, but as people who serve our community, and in our quest to serve, the pandemic response should be community-led and driven. From what we have seen when the community lead things like a vaccination drive, then the engagement and outcome is very good.

TO'A: The Pacific nurses are front and centre, working closely with our communities. It is their cultural values, their knowledge of the communities and their everyday interactions and connections with our people in hospital, in managed isolation, in clinics and primary care, and in the community, that will help encourage them to engage and be vaccinated.

ABEL: Also, we must remember that Pacific nurses have often been called upon to provide language and cultural support across the sector. This is rarely acknowledged as a strength and asset to organisations. Pacific nurses do this voluntarily and we do it because of our commitment to our community. Using Pacific languages and culturally safe models of communication improves understanding and enables community engagement.

TO'A: Yes, it is so much more than language. It is also around our approach and messaging. If we take the August Delta cluster, we needed to find the most culturally appropriate person to approach our pastors and ministers of religion, to be able to engage with the church community. This was particularly so given the backlash of inappropriate and racist comments, and stories that came through mainstream and social media.

Engagement: A reciprocal partnership approach

SUE: As you've said, getting the engagement of community Pacific leaders seems to be critical. What have we learnt, as nurses, as the health sector, about how we work with Pacific communities to provide the right information and support their engagement in the pandemic response, such as testing, isolation, and vaccination?

TO'A: The initial engagement is usually from the Pacific providers to the community leaders. It is around making sure that the right people who are trusted and respected are chosen as the spokespeople to go into those Pacific communities, and particularly to engage with the pastors and ministers of the church.

ABEL: What is clear when engaging with Pacific communities is that we, as health care providers and as nurses, need to reconnect with our Pacific values and principles of reciprocity, respect, inclusion, relationships, family, love, spirituality, and use and practice these. When I think about how we are engaging, it is through servant leadership. We need to change the rhetoric and acknowledge that the community has the answers. Many of us are trained in western models of care that operate in parallel with our Pacific models of engagement and health, and we must be mindful of the two different worldviews.

SUE: I'm interested in how nurses navigate their way between the different worldviews of Pacific and the western-European worldview. There were, and still are, myths going around about vaccination. In Samoa, we saw the devastating effects of a measles outbreak in a country with low vaccination rates, a tragic vaccination error, the rise of anti-vaxxers, and then finally strong engagement with leaders to move communities through the fear of vaccination to achieve high vaccination rates. How do nurses manage the tension where community leaders should be the decision-makers for their communities, in say vaccine hesitant communities, while at the same time knowing that being immunised is going to protect their communities? How do nurses reconcile these differences?

ABEL: Too often the health fraternity goes in with the mindset of providing the facts. That is a very simplistic way of changing peoples' views and attitudes, and we know from experience that it hasn't worked. We need to step back and connect to our values and principles. We need to build trust with our communities, promote and support engagement through talanoa that is mana-enhancing [honouring and respectful], gain their confidence, and then through these processes we can give them the opportunity to hear what western science is offering. At the same time there are Pacific worldviews that we need to acknowledge and respect. We work side-by-side so people can make informed choices for their families – aiga, kāiga, magafaoa, kōpū tangata, vuvale, fāmili – and their communities. Through this and previous pandemics, here and in the Islands, I've learnt that we've got to step back as nurses and not carry just the agenda of providing facts and demystifying health issues. When I enact my Pacific values of respect, reciprocity, talanoa, and so on, this

adds a richness to the dialogue that will promote engagement. Somewhere within that dialogue we have an opportunity to peel back the layers to understand how they have reached their views and we can exchange sound scientific knowledge so they can make an informed choice. I've worked with many senior and wise Pacific nurses over the years who do all of this, and they get the engagement and they get the results.

TO'A: And do you think, Abel, it is something that is missing from our curriculum? I think it is missing. Seeing the Pacific nurses who are coming through now, there's a lot to be said for having nursing education in the Islands, because you are constantly working within your cultural norms of reciprocity, of respect, of alofa [love], of what it means to be looking after families and communities, babies right up to our older people. The context of nursing has changed which seems to have impacted on how we embed and integrate our cultural values into our nursing practice. E-technology has changed how we interact with our patients.

ABEL: Nurses refine their practice through postgrad education and practical experience and currently there is a mis-match with our postgraduate curriculum and what's really happening out there in the Pacific world. I've been invited to teach the Pacific context in some postgrad nursing courses and I'm given an hour. I mean what can you teach in an hour – is this tokenism and tick box? We need to find a way of embedding Pacific culture and world views throughout the postgrad curriculum.

The rhetoric of equity

SUE: How you are talking about language, culture, community engagement, and valuing relationships, seems to me to be at odds with our westernised biomedical model of healthcare and the top-down public health approach that we have mostly seen through this pandemic. How does the model you are talking about fit with the health system's response?

TO'A: The approach nurses use is not biomedical, though we understand the science and the data. It is instead around how we capture the hearts and minds of our communities, because if we can't do that, we don't have a way in at all. So far, the messaging and information has been around the science and data in terms of the virus and the vaccine. Though we have just begun to see this change and we have pivoted into a space where we know we need to engage even more so with our communities, if they are to come and be vaccinated. It is the nurses and their lived experiences and relationships with their communities that is essential. So yes, it is far removed from the biomedical approach.

SUE: There have been several opportunities to do things differently to protect Pacific peoples from the COVID-19 outbreak – at the start of the pandemic; the August 2020 cluster; and now the current [Delta] outbreak, though you have noted a recent shift. In the August 2020 cluster, more young people got COVID-19, more Pacific, and more Māori. Yet when it came to the vaccination roll-out [starting May 2021] the oldest age groups were first included and neither Pacific nor Māori were prioritised, despite being a younger group with greater likelihood of poor health outcomes.

TO'A: The pandemic made equity issues more visible. We knew for a long time that Pacific communities were at greater risk, because of the long history of inequities, communities already struggling with poor income, overcrowding, food security issues, generally poorer health. If we had listened to our communities earlier to know how we could do this, particularly with the vaccination roll out, we would have had a way better outcome. Even if we had listened at the start of this Delta [2021] outbreak, it would have been different.

SUE: Our family began watching *The Panthers*[1], which was televised about the time the Delta outbreak started. 50 years on and we are still seeing not dissimilar issues of inequity, institutional racism, and overt racism occurring.

TO'A: The Delta outbreak really brought to the fore the biases of our non-Pacific population. The August 2021 cluster started with someone from Devonport [who was non-Pacific/non-Māori] and that person was not slammed [by the media]. Instead, he was praised for going to get tested and doing the right thing. When the cluster spread and reached Pacific churches and Samoan communities, well it was another form of racism. There was blatant racism towards the Pacific communities and the Pacific

[1] The Panthers is a New Zealand drama for television set in the 1970s during the period of the Dawn Raids following the emergence of the Polynesian Panthers. Produced by Halaifonua Finau and Tom Hern.

nurses. Then everyone was then targeting our Samoan communities.

SUE: That must have been very hard for you as Pacific leaders to witness, knowing that Pacific nurses and their families were both witnessing and on the receiving end of racism.

TO'A: We know there is going to be a very long tail of recovery for our Pacific communities and nurses, and there are going to be ongoing concerns.

ABEL: Yes, I am also worried about the repercussions; about nurses' on-going psycho-social dilemmas, moral injury, their health, and what support will be offered to our nursing workforce post-pandemic? We have had to temporarily put aside some family, church, study commitments. But when the pandemic is over, we will have to pick all this up again, and who is going to support the Pacific nurses.

Experiencing isolation

SUE: We'll come back to the nursing workforce later. I am interested in how quarantine and isolation have been experienced by Pacific peoples, who are community-oriented, often closely connected to church, and with strong networks of extended family members; and how the nurses have responded. I imagine this was a tension for them.

ABEL: We are a communal people, and in the quest to isolate and quarantine, those processes [MIQ] have not really worked for us. We will need to look at how we serve and engage Pacific peoples better as a collective and look at what works for them and learn from our communities and families as well as from the frontline nurses who have been working in those facilities and areas of support and care.

TO'A: The whole package of MIQ is not only about isolation and quarantine. It is about the activities - what you can do in there. It is about the food, welfare, psychological and psychosocial issues of isolation, and mental health. So already when you are starting on a back foot being from a marginalised group, then how does being in isolation [because of testing positive to COVID-19] or quarantine compound health and wellbeing. It is going to be so important that we discover such impacts for the future and how nurses can work in these situations. Also, MIQs are under MBIE [Ministry of Business, Innovation, and Enterprise]. For the nurses this means they have had to interact with various and different agencies which has added another layer of complexity. They have had to overcome different understandings of how they work, their priorities, how they communicate and deliver messages to those in the facilities.

Learnings

SUE: Thinking about how we capture the learnings from the pandemic for the Pacific nursing workforce, and therefore, the Pacific communities, where do we go from here?

ABEL: As nurses, not only have we served in this pandemic, but it has taken us back to valuing our community development approaches. We need to do research and ensure those studies inform future activities, strategies, policies, and practices. Too often our learning is very short-lived. We are dictated to by systems and structures. As nurses we come to work, we do the work, we just accept how it is, and move on, and we don't question, though I think that is a problem for nursing as a whole.

TO'A: I think this pandemic has also highlighted the short vision of some organisations and employers around diversifying their teams. We need to reflect on how we support Pacific nurses, including how to work with communities, and how we support their ongoing postgraduate education, career development, and cultural competence. We need a targeted roadmap.

ABEL: We know that opportunities to access governance, leadership, and advanced clinical roles for Pacific nurses are lacking - the doors don't open readily just because of the added qualification and experience we may acquire. We need Pacific champions to advocate and carve out pathways, and the lack of Pacific nurses to at the forefront of planning. We need to do things differently in the future. Just like we rely on the Pacific communities to find and lead solutions, we need to use our Pacific nurses to own, plan, and lead their futures.

Policy and practice recommendations

The burden of the first six weeks of the August 2021 Delta outbreak has fallen heavily on Pacific communities in Auckland, with Pacific nurses stepping up to serve their communities. They have utilised their cultural values, knowledge, and language that has been essential for the protection and wellbeing of their communities. Such work though is not acknowledged and learnings are often short-lived. Embracing Pacific values of reciprocity and collective responsibility has left little chance for

those nurses to reflect upon and develop workforce strategies, and many are experiencing burnout. From our talanoa and knowledge of the inequities faced, we present the following recommendations in relation to the Pacific nursing workforce.

Firstly, a roadmap for the Pacific nursing workforce is required to not only increase the number of Pacific nurses, but to ensure they have access to career development opportunities, moving into senior positions across the health and tertiary education sectors. While strategies have been published (Ministry of Health, 2020b; Ministry of Health & La Va, 2012), they have not been adequately resourced and enacted. Just 4% of the nursing workforce are Pacific (compared to 7.4% of the population), and of all Pacific nurses only 17% work in primary health care settings (NCNZ, 2019). There are 8 Pacific NPs out of 534 in total, and very few Pacific nurses in senior leadership positions. This lack of diversity in the health workforce reflects systematic bias and racism within the healthcare system (HQSC, 2021). Organisational commitment at local, regional, and national levels is required to promote career pathways for Pacific nurses, which includes professional and cultural development; postgraduate education; mentoring and peer support networks; and access to colleagues and leaders who will champion Pacific nurses. Increasing the Pacific nursing workforce in primary health care should be prioritised to improve access for Pacific communities to healthcare.

Secondly, Pacific culture and values, knowledge of Pacific ethnicities and communities, and approaches to engage with families and communities to promote health equity, need to be embedded in undergraduate and postgraduate nursing programmes. The Aniva postgraduate leadership programme (Aniva, n.d.), run through Whitireia, is designed to promote Pacific models of care and safety, and leadership knowledge and skills, that support the health and wellbeing of Pacific people in the Aotearoa New Zealand context. Other institutes of technology and polytechnics (ITPs) are running Pacific undergraduate nursing programmes. However, within universities, institutionally racist systems with westernised processes reduce access for Pacific students and academics (Kidman & Chu, 2019). It is time to forefront Pacific health and wellbeing throughout nursing curricula and to ensure culturally safe processes and practices are in place to engage Pacific students and nurses with tertiary education so they can succeed across the domains of clinical, educational, leadership, and research.

Finally, the health sector needs to acknowledge and learn from the significant role that Pacific nurses have played through the COVID-19 pandemic, and indeed previous pandemics. COVID-19 has further highlighted the gaps in service delivery and inequities for Pacific communities that were already well known (HQSC, 2021; Walsh & Gray, 2017). Solutions to health issues lie with Pacific communities. We have seen the necessity of ensuring that engagement with Pacific communities is culturally nuanced, and respectful of Pacific worldviews and principles (Ioane, 2021). When this occurs, equity of health outcomes can be achieved. We are hopeful that the health reforms underway will reflect the need for a Pacific nursing workforce that is enabled to work alongside Pacific communities to promote health and wellbeing.

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International Spotlight

Seeing lockdown through the eyes of children from around the world: Reflecting on a children's artwork project

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Abstract

The COVID-19 pandemic created new challenges for children including access to education and limiting social and emotional connections to extended family, friends, and the community. Globally, opportunities for sharing children's self-reported experiences during lockdown were limited. The primary aim of this project was to create an art-eBook that reflects children's experiences of life during the COVID-19 pandemic that could be shared with other children around the world. Secondly, we wanted to reflect on the consultation undertaken within the International Network of Child and Family Centered Care (INCFCC) using Gibbs (1988) reflective cycle framework. Children from around the world were invited to submit a piece of artwork that reflected their experience during the COVID-19 pandemic via a Qualtrics-survey in May 2020. The children's artwork and written pieces were transcribed verbatim into an eBook and the artwork was further placed into groups based on similarity of meaning. Fifty-five children from 17 countries submitted an artwork piece. Four groups were evident within the children's artwork including infection control measures, positive experiences and emotions (connection to family, fun activities), negative experiences and emotions (social impact, emotional impact), and uniting children globally. The eBook illustrates how children of all ages can provide meaningful insightful commentary and valuable information on their experiences during an unprecedented pandemic.

Keywords: arts-based approach, child and family centred care; children's experiences; COVID-19, eBook, Gibbs reflective cycle

Introduction

The Director General of the World Health Organization (WHO), in his media briefing on COVID-19 on March 11, 2020, announced that the COVID-19 pandemic had affected more than 118,000 cases in 114 countries, and 4,291 people had lost their lives (World Health Organisation, 2020b). Sixty percent of all children worldwide were living in countries that had a full or partial lockdown in place (United Nations, 2020a). The COVID-19 pandemic brought with it significant changes and challenges not least for children and young people; these changes have been influenced by the enforced lockdown restrictions imposed by most countries, states and/or territories (Cooper, 2020; Royal College of Paediatrics and Child Health, 2021). Restrictions include the closure of schools; variable access to alternative online learning; inability for children to socialize; limited opportunities to develop important social and behavioural skills; the loss of loved ones; and adverse news about the virus (de Figueiredo et al., 2021; Lee, 2020; Nearchou et al., 2020). Children have been variably impacted through lack of resources, support or skills to invest in digital learning in schools; lack of access to digital devices; no or variable internet access; and limited parental support (UNICEF, 2020).

It has been reported that the first lockdown had a significant impact on the social and emotional development of young children (3-6 years), older children (7-9 years), and adolescents (10-18 years) (Nearchou et al., 2020). The effect on young children (3-6 years) included signs of insecurity, fear of family members being infected, feelings of isolation, disturbed sleep, nightmares, poor appetite, and separation anxiety from parents who were required to be quarantined (Jiao et al., 2020; Royal College of Paediatrics and Child Health, 2021). For older children and adolescents (7-18 years) the effects included feelings of uncertainty about cancelled exams or academic events, depression, inattention, suicidal ideation and self-harm, with increased use of the internet and social media (Jiao et al., 2020; Lee, 2020; UNICEF, 2020; Viner et al., 2020). The constant messages about the use of handwashing, sanitisers, mask use, glove wearing, social distancing, escalating numbers of COVID-19 cases, social media, and fear of food and medication insufficiency have been shown globally to heighten child and family distress (Al-Motlaq, 2021; Cooper, 2020; Liu et al., 2020; United Nations, 2020b). Children with disabilities, mental health disorders, comorbidities, and under privileged populations have been shown to be further at risk of adverse health outcomes and abuse occurring within the family during the COVID-19 lockdown (Cooper, 2020; UNICEF, 2020a). UNICEF (2020a) reports that the resources available during the COVID-19 pandemic have not been distributed equally for children in the poorest countries and those in already disadvantaged or vulnerable situations.

Parental and other guidance and advocacy for children's best interests during the COVID-19 pandemic needs to be actioned in a way that takes account of their competency, capacity, and developmental age; this can be achieved by legalisation and action by international organisations, and advisory bodies (Singh et al., 2020; Tang et al., 2021). It is vital to plan child focused age-appropriate initiatives and programmes to enhance children's and adolescents' ability to access videos, booklets and explanations on COVID-19 including online counselling services during and after lockdowns (Dewa et al., 2020; Singh et al., 2020; World Health Organisation, 2020a).

The International Network for Child and Family Centered Care (INCFCC, 2020a) is a growing global collaboration of experts in child and family centered care. Members of the network communicate and collaborate in research, practice development and education to identify good practice and develop the evidence base to influence positive change at local, national, and international levels (Al-Motlaq et al., 2018; Al-Motlaq & Shields, 2017; Foster & Shields, 2019; Quaye et al., 2019; Smith et al., 2017). The collaborative network works to achieve its vision through considering the specific challenges of different cultures and care settings and by ensuring that children and their families are central to the network's collaborative enterprise (Al-Motlaq et al., 2021; Foster et al., 2018).

During the first COVID-19 pandemic lockdown, a team of twenty-one members of the INCFCC expressed an interest in children's experiences of life during lockdown. Children can often find expressing their ideas and feelings is easier if they can use creative methods such as art, poems, songs or photos (Foster & Whitehead, 2018; Rogers, 2018). The team wanted to create an eBook of artwork that reflected children's experiences during the COVID-19 pandemic that could be shared with other children

around the world, to help acknowledge their feelings during this difficult time.

This article uses the Gibbs (1988) reflective cycle to explore how this arts-based project contributed to the appreciation and deeper understanding of children's experiences of the pandemic. Reflection is important:

> *It is not sufficient simply to have an experience in order to learn. Without reflecting upon this experience, it may quickly be forgotten, or its learning potential lost. It is from the feelings and thoughts emerging from this reflection that generalisations or concepts can be generated, and it is generalisations that allow new situations to be tackled effectively. (Gibbs, 1988, p. 14)*

Within this article we used the six stages of the reflective cycle (Gibbs, 1988) to report on our experience of undertaking this eBook project. It shows how this experience has enhanced our on-going learning. The six stages were: description - what happened; feelings - what you were thinking and feeling about the experience; evaluation - what was good or bad about the experience; analysis - what sense you can make of the situation; conclusion - what else could you have done; and action plan - if it arose again, what would you do.

Stage 1: Description of the project

The eBook project was not a research study but rather a unique examination that adopted a consultation approach to find out about children's experiences and ideas of the lockdown. To ensure ethical compliance and outcomes of any future reporting of the experience, the team provided sufficient information about the project to children to be able to make an informed decision prior to providing assent or consent both for their participation in the project and use of their artwork. A key reason for not undertaking this as a research study was that we wished to gain insight into children's contemporaneous experiences during lockdown and we wished to undertake this globally. Given the number of countries involved it would have been impossible to secure ethical approval in all these countries within the time frame, consequently we chose an ethically conducted consultation approach. Twenty-one of the 67 INCFCC members worked on the eBook art project during 2020.

The eBook project involved inviting children, grandchildren, or close kin and friends (up to 18 years of age) of members of the INCFCC to participate via a Qualtrics survey between 1 and 31 May 2020. Children were asked, with parental assistance as needed, to submit an image of a piece of artwork (such as drawings, poetry, stories, letters, collage, LEGO, and other creative play resources) that reflected something about their experience during the COVID-19 pandemic. They were also asked to explain why they decided to share this piece of artwork, provide details about their artwork, their age, the country they live in and their given name or the pseudonym that they would like to accompany their artwork. Comments were either written by the child or by their parent. Children provided voluntary informed assent and parents confirmed their consent by submitting their art piece through the Qualtrics portal.

At the time of artwork entry, parents were asked about the level of COVID-19 restrictions experienced by their child; the restriction options were 'none' (no change to normal living routine); 'minimal' (still attending school, but not allowed to play with friends after school); some (still attending school but not allowed to play with friends after school and needed to stay 1.5-2 metres apart); 'moderate' (home schooling, able to go to parks); or 'severe' (not allowed to leave the family home).

Children's contributions (words, poetry, stories, photographs, and drawings) were collated into an eBook and structured so that the children's contributions were presented in sections for the different countries. The level of lockdown restriction was also included as part of the child's page. Responses submitted in a language other than English, included a translation into English, beneath the submitted image. Translation was carried out by multilingual members of the INCFCC who were fluent in the identified language. Languages translated to English included Arabic, Swedish, and Turkish. The team did not analyse the data but instead used a descriptive approach to place the children's art pieces into groups based on similarity. This included four steps: (1) each child's art submission was presented and discussed individually amongst the members during several online recorded meetings; (2) the art pieces were then transcribed verbatim into an eBook; (3) the descriptions that accompanied the art pieces were placed into groups based on

similarity; and (4) the eBook and groups were discussed amongst the members until a consensus was reached. To ensure ethical integrity of outcomes, the team gained children's assent and parental consent from children both for participation, use of their artwork and for their given name and age to be used in the eBook, if they so wished. All the children wanted their name to be linked to their artwork.

Findings

A total of fifty-five children (aged 4-14 years) across 17 countries participated (Figure 1). Forty-two children were in a severe or moderate level of restriction (Figure 2). The eBook is available to download free of charge via the INCFCC website (2020b) and we distributed it directly to all the children and families who participated.

Four groups were evident within the children's art submissions. These were infection control measures, positive experiences and emotions (connection to family, fun activities), negative experiences and emotions (social impact, emotional impact), and recognition of the wider impact of COVID-19.

Figure 1: Countries of residence of participating children

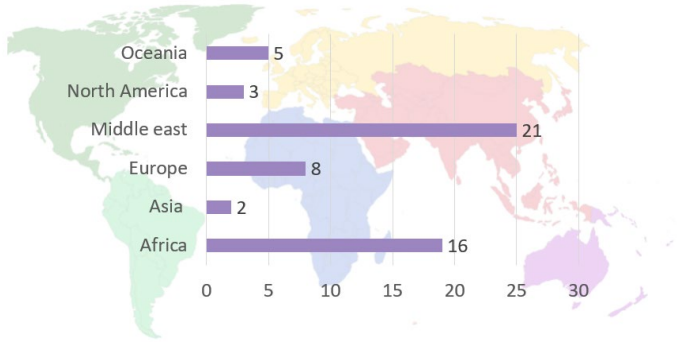
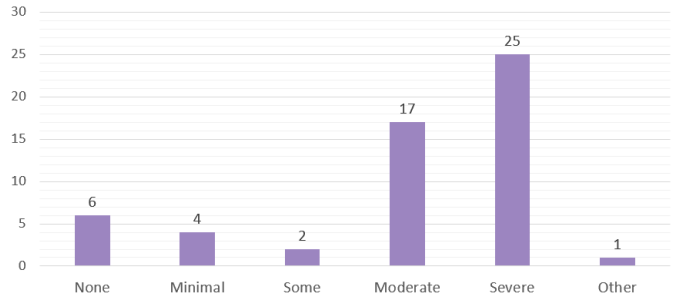


Figure 2: Level of restrictions experienced by participating children



Children engaged with the project using different art forms; pictures (n=42), stories (n=8), photos (n=4), poems (n=3), Lego (n=3) and computer-generated pictures (n=3) representing 63 art pieces. Five children submitted more than one picture. Seven of the children's art pieces have been selected for inclusion in this paper as they reflect various aspects of their COVID-19 lockdown that support the four groups (Figures 3-10).

Infection Control Measures

Over a third of children (n=23), including some as young as four years of age, used the same basic image of the coronavirus showing the proteins on the outer shell of the virus, illustrating the power of images circulated in global media as shown in the artwork (Figures 3 and 4).

Figure 3: Kekey 10 years old from Indonesia

A common area, evident in the majority of the children's artwork, concerning infection control was preventative strategies to limit transmission of the virus. This included washing hands properly "*As we begin to go out to play as children, the more we wash our hands with soap and water the happier (smiling) our hands will be*" (Olachi, 11yrs, Nigeria). Other children noted this also involved *"not touching one's eyes, nose or mouth"* (Hebah, 14yrs, Jordan); sneezing or coughing into one's elbow "*Any time I sneeze or cough, I have to do it inside my elbows*" (Natasha, 10yrs, United Kingdom).

Figure 4: Apek, 9 years old from Turkey

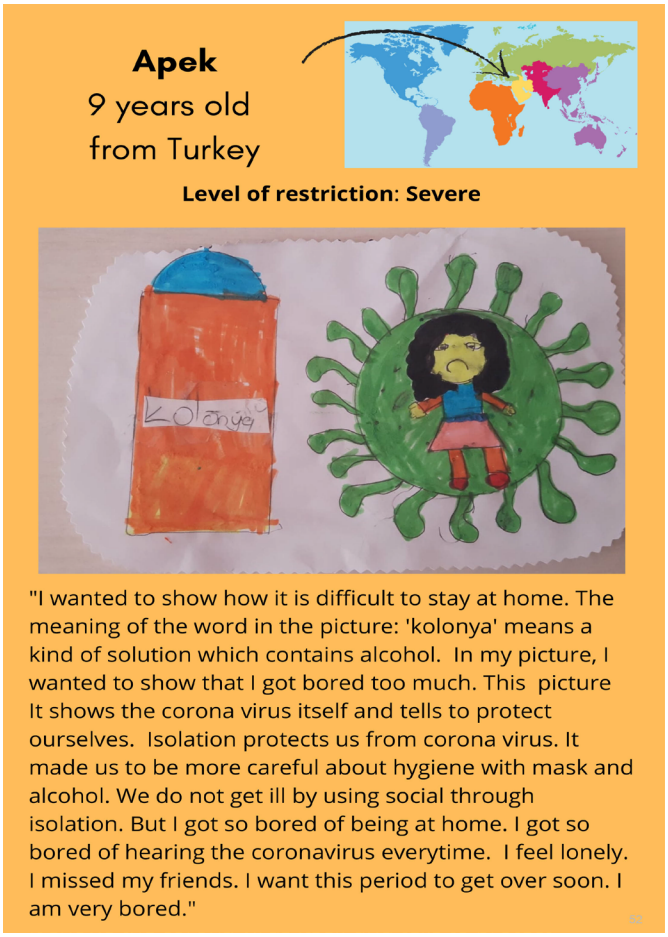
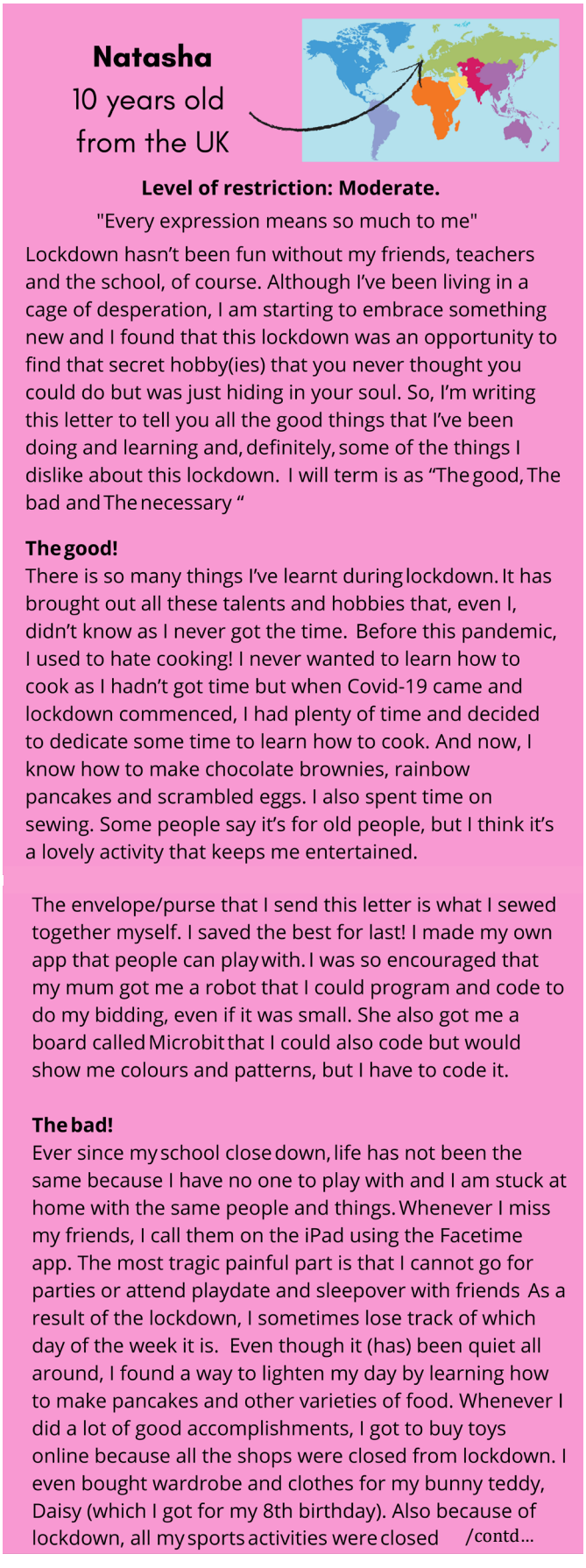


Figure 5: Natasha 10 years old from UK



Other methods noted included social distancing: "Observe social distance since prevention is better than cure" (Favour, 10yrs, Malawi); "avoiding crowds" (Lady T, 7yrs, Zambia); "Isolation protects us from corona virus" (Apek, 9yrs, Turkey); and "staying at home" (Momo, 6yrs, Zambia). Other measures children talked about were using "mask on our mouths" (Luyando, 13yrs, Zambia) and using disinfectant "We use Clolex [Clorex: disinfectant] to stop Colona [corona virus]" (Yara, 4yrs, Saudi Arabia). One child talked about listening to adults: "The ears are representing how important it is to listen" (Momo, 6yrs, Zambia). Children as young as 4 years old seemed very intuitive, insightful and had a good understanding for their age on what was important and how to keep safe.

Positive experiences and emotions

Positive experiences included 'connection to family' and 'fun activities' experienced during the COVID-19 lockdown.

Positive experiences and emotions: Connection to family

Connection to family included being able to stay at home; normal household rules or schedules were

so to keep me occupied therefore I do my Jado Kuin Do practice at home and exercise using the trampoline,). As my mum is a doctor, a keyworker, her work is prolonged throughout the day, and sometimes, often on Wednesday and Friday, does she go on-call, which is when a keyworker works in the night. Whenever she comes back, I feel sad that, I cannot hug her instantly because of the danger of infection from her clothing.

The Necessary!
1) Whenever I am in the shop, I must stay at least two meters apart from the person in front of me because of social distancing will stop us from spreading any sorts of microorganisms. 2) Any time I sneeze or cough, I have to do it inside my elbows, and if I do it on my hands, I have to wash my hands with soap and water and even better with alcoholic sanitizer. 3) I am not allowed to visit other country or even friends because, to protect us, we do social distancing so we cannot spread it. I hope you thoroughly enjoyed my description of how the lockdown has affected my life.

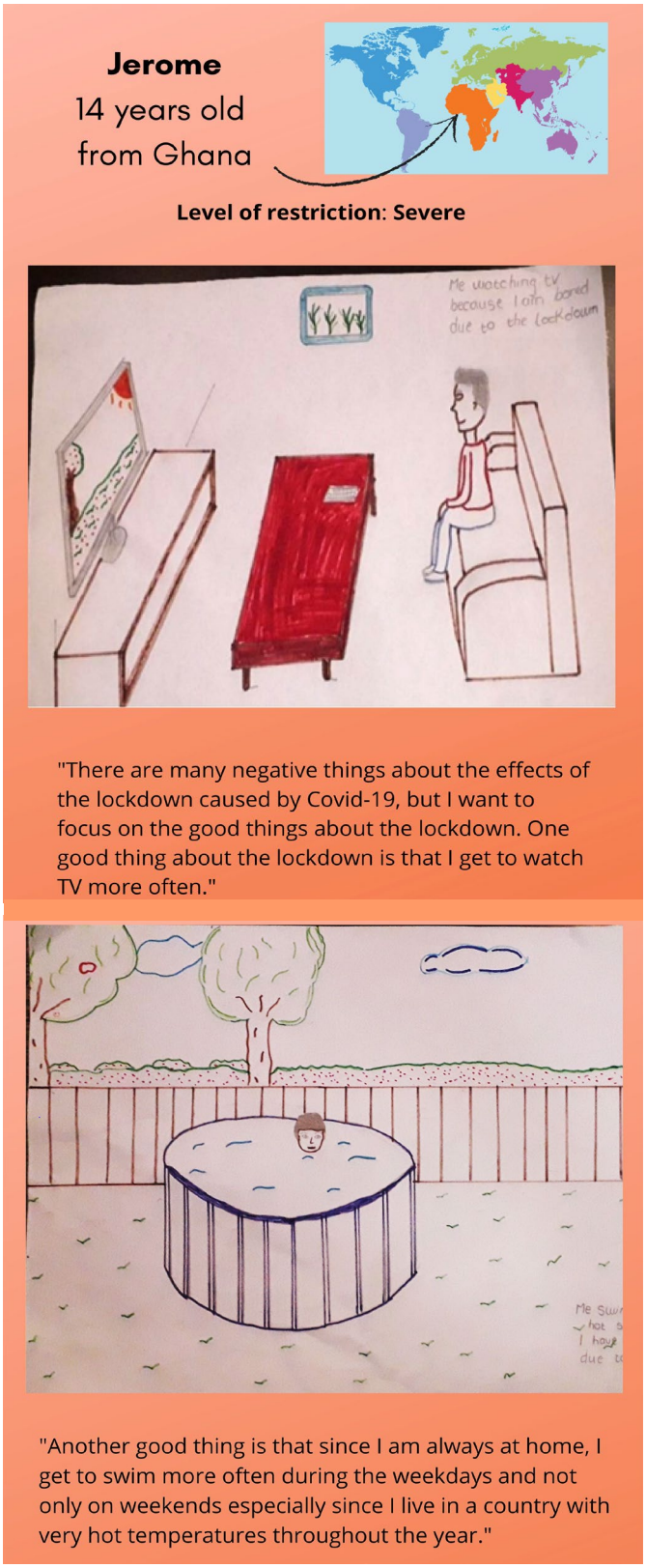
Yours Sincerely,
Natasha (Kawaii Unicorn), Year 5 Primary School

flexible; there was more time for playing with one's siblings, parents or the household pets: "My family has more time to have fun and hang out together" (Edwin, 11yrs, Sweden). Some children saw being able to sleep in as a positive: "I also used to wake up as early as 05:00 am to get ready for school but now I wake up at 08:00 am since I have nowhere to go" (Jeslyn, 11yrs, Ghana). Other positive experiences included finding the true meaning of love by constantly being together as a family: "I now know the true meaning of love, having been in lockdown with my family" (Layan, 11yrs, Jordan) and in a way "It is a kind of a holiday" (Burak, 10yrs, Turkey).

Positive experiences and emotions: Fun activities

Fun activities included being able to watch TV: "One good thing about the lockdown is that I get to watch TV more often "(Jerome, 14yrs, Ghana); learn new skills, "I have been learning about art at home school" (Milo, 6yrs, United Kingdom); and doing art projects, "I was playing in the playing ground, I found this broken board. I tried to cut it properly, gathered my acrylic colors and started to paint" (Osama, 10yrs, Jordan). Children said there was more time for fun activities such as swimming, walks which included looking for teddy bears, rainbows, and bike rides: "We go for lots of walks and bike rides and look for bears and rainbows that are in the house windows. One day we spotted 32 bears!" (Eli, 7yrs, Australia). Other positive experiences included cooking "chocolate brownies, rainbow pancakes and scrambled eggs" (Natasha, 10yrs, United Kingdom), sewing, creating apps, playing board and electronic games, on-line purchases and gardening. The artwork below reflects some of these fun activities during COVID-19 (Figures 5 and 6).

Figure 6: Jerome 14 years old from Ghana



Although fun was reported, sometimes a sense of mixed (positive and negative) experiences was evident even within the same art piece with one child explaining "I am not sure if it is something good or bad. It makes me have fun most of the time. But sometimes I feel guilty, it is weird" (Burak, 10yrs, Turkey). Another child also reflected on how good could come out of bad, explaining she felt she was:

> *living in a cage of desperation…. yet found that this lockdown was an opportunity to find that secret hobby(ies) that you never thought you could do but was just hiding in your soul.* [Natasha, 10yrs, United Kingdom]

Negative experiences and emotions

Negative experiences included the 'social impact' and 'emotional impact' children experienced during the COVID-19 lockdown that were synergistically interconnected.

Negative experiences and emotions: Social impact

The social impact included children feeling uncomfortable wearing a mask and gloves:

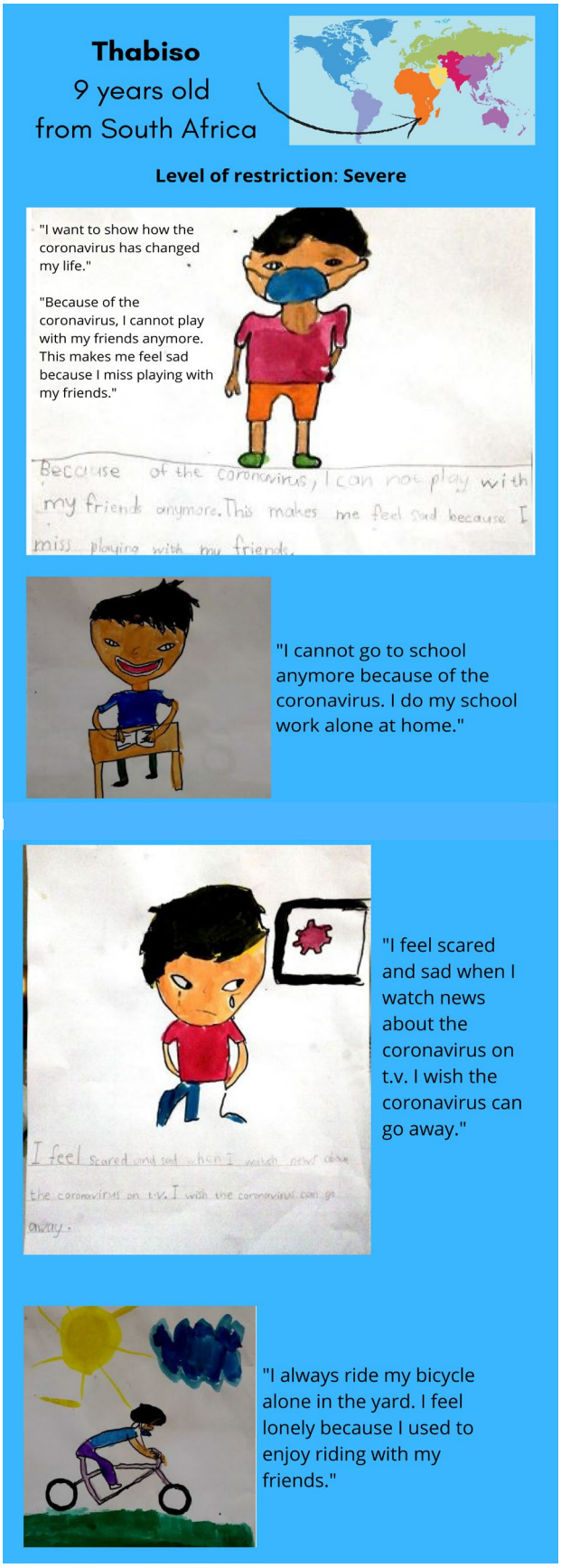
> *And when we are going out, I have to put on my nose mask and wear my gloves and take my rubbing alcohol. This puts me under a lot of pressure because I feel hot and uncomfortable in the nose mask.* [Dromo, 11yrs, Ghana]

Other negative impacts included limited on-line teaching facilities: "We do not go to school and my school is not having any online classes so my dad teaches us at from home" (Djormo, 11yrs, Ghana) and others experienced difficulty in learning at home: "It is very difficult to study on my own without going to school" (Yilmaz, 13yrs, Turkey). No contact with friends or relatives outside of their family bubble was perceived as a negative experience: "We cannot meet with friends and relatives in real because we are not allowed to go out" (Burak, 10yrs, Turkey). Children expressed concern over their grandparent's wellbeing as, "I miss and worry about grandfather and grandmother who are in the risk group" (Axel, 9yrs, Sweden).

Some children stated that they missed their friends, clerical and church events, school, sports, shopping, going to parties or attending playdates or sleep overs:

> *The corona virus has prevented me from going to school and church. I have missed my friends at church and at my school because there is a ban on social gathering.* [Deede, 7yrs, Ghana]

Figure 7: Thabiso 9 years old from South Africa



The children wanted to return to normality, noting that "I do not know when all this will be over and when we can live normal lives [that existed] before the pandemic" (Djormo, 11yrs, Ghana). Another child wondered, "When can we really be free, when can we stick our heads out, when will the dawn arrive" (Luyando, 13yrs, Zambia).

The children knew their freedom was restricted by COVID-19 and were clear that they hoped "coronavirus must die!" (Fadi, 9yrs, Australia) or blow away in the wind: "Coronavirus blow away and never come back!" (Pearl, 8yrs, Nigeria). One child drew a dinosaur, and the description was, "The child behind the window is stuck because of COVID. COVID sucks. I wish corona ended and extinct like dinosaurs" (Fadi, 9yrs, Australia).

Negative experiences and emotions: Emotional impact

The emotional impact included children feeling lonely:

> *This disease has affected me a lot, because I feel so lonely I cannot go out of the house to play with my friends like I used to. I feel so lonely and miss my friends at school.* [TK, 8yrs, Zambia]

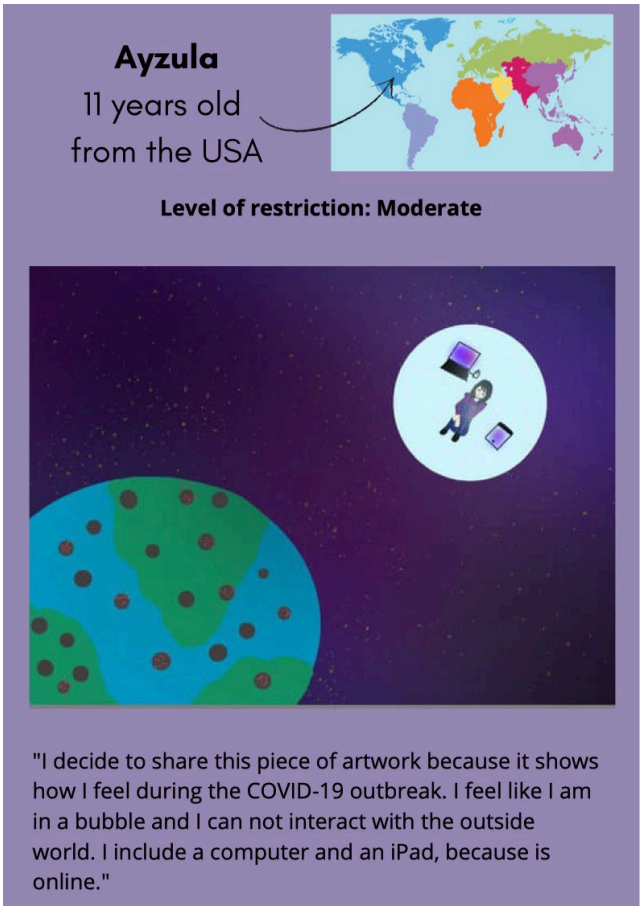
Other children expressed that they felt sad because they "cannot play with my friends anymore. This makes me feel sad because I miss playing with my friends" (Thabiso, 9yrs, South Africa). Another child explained:

> *I choose sad because coronavirus is here, I cannot see my friends in school, it is making people cry and killing people. I want it to go away, so I can be happy and hug again.* [Ellise Gold, 6yrs, Nigeria)

Figures 7 and 8 illustrate the emotional impact of COVID-19.

The constant media updates meant that children reported, "I feel scared and sad when I watch news about the coronavirus on TV" (Thabiso, 9yrs, South Africa). The children talked of feeling isolated "feel like I am in a bubble and I cannot interact with the outside world" (Ayzula, 11yrs, America), with "a line between people, which was created by Corona virus" (Jason, 9yrs, America). Children also expressed a sense of a lack of control: "So even when l am at home it feels like I am a prisoner who has been put into jail" (Suomo, 11yrs, Ghana). Some children stated that they missed spontaneous hugs as you always had to wash your hands, and they were bored: "It's been 40 days inside, it's boring."(Odai, 7yrs, Saudi Arabia) and were tired of using electronic devices.

Figure 8: Ayzula 11 years old from USA



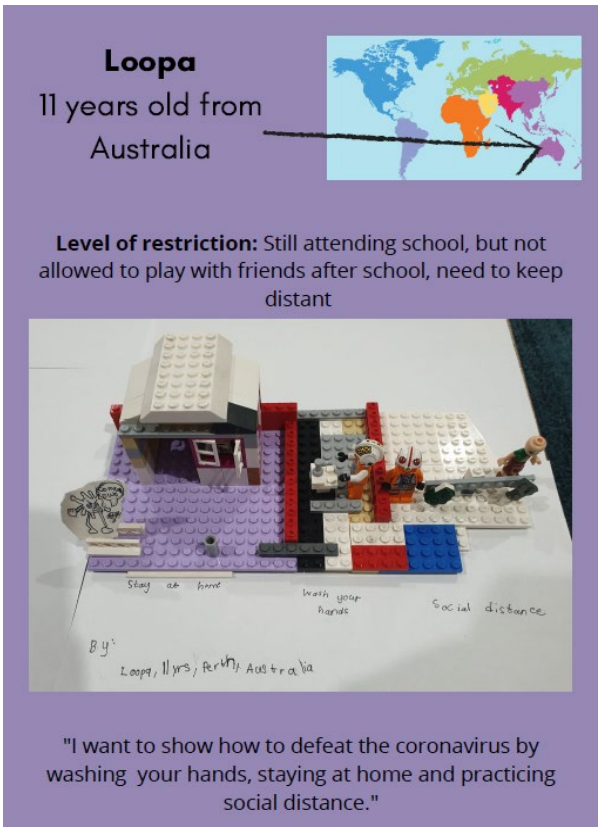
Uniting Children Globally

Some children wanted to reach out to children in other countries and share their experiences with other children: "I want other children in other countries to know how COVID-19 has affected our life as children" (Glory, 10yrs, Malawi); and "I just want to share my experience and listen to what others also have to say" (Jeslyn, 12yrs, Ghana), as "I don't want other children to be scared of COVID-19 like me" (Annakano, 9yrs, Australia). Sharing their experiences helped to unite them, irrespective of the country they were in, with children warning and supporting each other such as, " COVID19, be careful. One world, one love" (Nin Xuan, 6yrs, Malaysia). Some children relayed special messages in their art pieces for other children, explaining, "But we have to keep smiling and stay safe" (Roisin, 10yrs, Ireland) and, "Most importantly, let's be safe, let's be brave, we shall not fall to this virus" (Luyando, 13yrs, Zambia).

Figures 9 and 10 show how children depicted sharing special messages with each other.

Figure 9: Hebah 14 years old from Jordan

10: Loopa 11 years old from Australia



Children also stated that taking part in this project was enjoyable and helpful: "I decided to share my poem because this is how I feel about the virus and I feel better writing about it" (Pearl, 8yrs, Nigeria).

Stage 2: Feelings

At one of the INCFCC meetings in February 2020, the idea of developing an eBook of children's artwork was discussed as a way to learn from children about their experiences and feelings during the lockdown and that could be shared with other children around the world. It was clear from the artwork the children created and the words, stories and messages they presented, that the eBook helped children to share their feelings and experiences. Although varied in their approach, depth and nature, the children's artwork and written work, demonstrated that most children were reflective and able to give explanations of their art pieces. Reflecting on the work they created made us, in turn, think more deeply about how the pandemic had affected them and we found it quite emotional creating the eBook. It was a project we became more deeply committed to with every child we 'met' through their artwork.

The stories and art from the children aligned with the INCFCC members' feelings of uncertainty and separation from friends and family during the pandemic. It also demonstrated the children's feeling of loneliness related to the restrictions and lockdowns on their inability to go to school, play or travel to see family and friends. Additionally, the uncomfortable feeling of wearing a mask outside was depicted in some of the stories. This experience is like those reported by the adult population (Cheok et al., 2021). In fact, the feelings expressed by children through their artwork show the need for healthcare workers to consider the emotional needs of children during the pandemic and to appreciate that children, like adults, also have feelings that should be acknowledged when providing care.

Stages 3 and 4: Evaluation and Analysis

This consultative process focused on creative art as a method for understanding children's perspectives on contemporary matters of their lives and the narratives that accompanied their drawings. Children worldwide have shared their lived experiences of COVID-19 restrictions in a unique eBook (INCFCC. 2020b). This COVID-19 Artwork contains drawings, pictures, poems, and narratives from children aged four to 14 years of age, with entries depicting subjects ranging from the difficulties of social distancing to

"Superheroes against Corona" (Yara, 4yrs, Saudi Arabia).

Reflecting on this process, it is clear that the children were reaching out to other children across the world to share their experiences. What perhaps they did not expect was the profound impact their artwork had on those of us involved in creating the eBook. We were immersed in the creation, layout, editing and dissemination of the eBook and we became close to the children and their art pieces. We came to know about the experiences of children in countries other than our own and it influenced our thinking.

One of the authors of the manuscript (SN) and an editor of the book explained:

> *"The pandemic has been inescapable, but our young people are living through it in their formative years, so hearing and understanding their perspectives is vital, it is clear from the children's contributions that COVID-19 has impacted on their lives in a big way as well as informing us as professionals we hope that their contributions will help and reassure other children" (King, 2021, para 8).*

Although this was meant to provide a venue for children to express their experiences, SN voiced a view within the team that the "child within the authors' adult selves was present by stimulating their own memories of being a child, and the children expressed our exact thoughts."

Another author (BC) and INCFCC member, commented to the group:

> *It's the international aspect of this book that makes it so special. Everyone has been living through a pandemic and this book unites the children through their experiences – ironically at a time when travel and physical connection are so unlikely; it's a really inspirational piece of work.*

Author and co-chair (MA-M) of the INCFCC considered the opportunities this project had given:

> *Reflecting back to the time when everyone was accommodating to the circumstances brought by this pandemic, this project was one means of saving the moments and capturing the lived experience of children affected by the pandemic. The collective gain from developing the book will be valuable in the understanding and management of future projects. On a personal level, this project provided us with a great opportunity to develop professionally and provide children with the opportunity to express their feelings and convey meaning through the use of creative arts as data collection tools, enabling young children to communicate their experiences and understandings of that experience.*

Further to this MF, the originator of the idea who is also affiliated with the International Family Nursing Association, described to the Nursing Times:

> *This project is incredibly valuable, not just for our network but for anyone worldwide who wants a snapshot of life for children during the pandemic. It's something we're all really proud of, and we're very grateful to the young people involved for sharing their experiences. (Mitchell, 2021, para 8-9)*

On reflecting with the team, MF explained:

> *This is exactly the same sort of concept in regard to honouring children as valid active capable social agents in society and we need to hear from children about their experiences and what matters to them. We should never assume we know without asking children.*

Stage 5: Conclusion

The team of this project concluded that by using an arts-based on-line approach during the COVID-19 lockdown, children of all ages around the globe were able to participate and provide a variety of art pieces that were meaningful and rich. This project has further enhanced the belief that children of all ages can provide valuable meaningful insightful commentary as capable competent citizens.

This project also brought 21 members of the INCFCC across 12 countries together with regular meetings over 12 months, keeping them connected, engaged and focused on the INCFCC vision. The art eBook is an example of including children to gain a deeper and more meaningful insight into a child's world to direct child focused initiatives, research, legislation, and practice that is underpinned by the United Nations (n.d.) Convention on the Rights of the Child. The 71-page Children's COVID-19 Artwork eBook created by children for children (INCFCC, 2020b), is ready for dissemination to children, parents, healthcare professionals, providers, educators, academics,

researchers, governmental departments, and policy makers globally.

The eBook was publicised by different means in the international media including local radio stations, national and university websites and nursing websites.

Stage 6: Action Plan

The long-term consequences for children on the COVID-19 pandemic are likely to be far-reaching. The eBook provides some useful insights for professionals working with children and young people across health, social, and education sectors. The Action Plan includes strategies that can be adapted and used to develop and improve practices. Our focus is on four main areas.

Firstly, healthcare and other professionals, including nurses, need to act on the knowledge that children and young people have been impacted by the pandemic. This means that we need to take the hopes, fears, worries, and concerns that they have shared in this project into our everyday encounters with children. The eBook we have produced creates the opportunity for starting a conversation with children by including them in discussions around the impact of COVID-19.

Secondly, there is a need to acknowledge the value of creative arts as a means of facilitating children and young people to express their feelings, experiences and stories.

Thirdly, children and young people make sense of the world around them using information available to them; healthcare professionals need to support their health literacy to enable them to make informed decisions and to feel secure. Examples of ways to support children's independence in the healthcare setting include offering choices where appropriate, having child-friendly videos available to watch in advance and allowing 'warm in' time where children have opportunity to become comfortable in the healthcare setting and ask questions (Nicholl et al., 2020).

Finally, we recommend future research studies exploring children's experiences utilise the medium of creative art to help children express their feelings.

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