

**The long-term impacts of COVID-19
on social, cultural, mental &
physical wellbeing: a literature
review**

Prepared for
Methodist Mission Northern

by
Ashleigh Witehira



A Research Paper completed as part of the Ngā Pae o te Māramatanga Raumati Internship Programme 2022-23. This internship was supervised by Dr Kiri Edge and Professor Linda Waimarie Nikora and sponsored by Methodist Mission Northern, as part of the Methodist Mission Northern and Ngā Pae o te Māramatanga 2022-23 Internship Grant.

2023

Suggested citation: Witehira, A. (2023). The long-term impacts of COVID-19 on the social, cultural, mental & physical wellbeing: a literature review. Online:
<https://www.maramatanga.co.nz/project/22-23INT18>.



This internship report was produced by the author as part of a NPM internship project under the supervision of the named supervisor and funded by the Methodist Mission Northern and Ngā Pae o te Māramatanga 2022-23 Internship Grant. The report is the work of the named intern and researchers and has been published here as provided. It may not represent the views of Ngā Pae o te Māramatanga or the Methodist Mission Northern. Any correspondence about the content should be addressed directly to the authors of the report. For more information on Ngā Pae o te Māramatanga and its research, visit www.maramatanga.ac.nz

1. Executive Summary

The COVID-19 pandemic has significantly exacerbated already pressing issues worldwide and has had a significant impact on the social, cultural, mental, and physical aspects of wellbeing. This extensive literature review, undertaken as an internship through Ngā Pae o Te Māramatanga was therefore established to analyse these prevalent issues and evident gaps in the literature in order to assist our sponsor Methodist Mission Northern in the production of their own community led programmes as well as suggest areas for potential future research.

This report was conducted as an extensive literature review. Durie's 1980 health model Te Whare Tapa Whā was used as a framework to help guide our search and further make sense of the interconnectedness of each aspect of wellbeing (Mental Health Foundation of New Zealand, 2023). This was important given the research question was multifaceted. A mind map was also developed and used as a search tool to ensure we covered a broad range of aspects in relation to the rangahau. Academic journals were of top prioritization; however, media clippings and radio talk show interviews were utilized as secondary sources to provide an insight into community thoughts and experiences. A total of 49 references were used to conduct this report, with each reference thoroughly checked for credibility and relevance to the research question.

Sections of the report consist of the long term impacts the pandemic has on the social, cultural, mental, economic, and physical aspects of wellbeing. This section acknowledges prevalent themes which emerged from the extensive literature review. The main findings of social long-term impacts included issues around social isolation, strains on the parent/child relationship, increased rates of domestic violence and child abuse, strained social/familial relationships due to work demand and attached stigmas and an increase in technology use, particularly for young people.

Cultural long-term impacts saw the interconnectedness of issues associated with mental health. Findings suggested COVID-19 disrupted tikanga around death, dying and tangihanga. This had an impact on the grieving process thus risking long term mental health issues (chronic grief, depression) as well as the spiritual wellbeing of both the deceased and the whānau involved. Despite this, iwi leaders saw through the adaptation of tikanga to suit COVID-19 policy and restrictions, showing both resilience and self-determination.

Main findings around economic impacts brought forth themes such as homelessness, the threat to ontological security, and the exacerbation or new experiences of food insecurity. Although there seemed to be a gap in the literature around homelessness and or/unstable housing situations during the initial waves of the pandemic, homelessness experienced in Māori communities was identified in iwi led approaches/publications.

The extensive literature review revealed that mental impacts of COVID-19 were significantly interconnected with each aspect of well-being. Main findings allowed us to seek out the most vulnerable groups at risk for long-term mental health issues due to the various impacts of the pandemic. These groups consisted of the following: essential workers, Māori and Pasifika youth, sociological disadvantaged individuals/families, homeless individuals/families, young members of the LGBTQ+ community and individuals with pre-existing mental health issues.

Gender roles around women and their workload capacity during lockdowns also put women in the at-risk group for developing long-term mental health issues. Furthermore, statistically women were also more at risk for facing a threat to their economic security as firstly, majority of women make up hospitality businesses that were shut down by the pandemic, and secondly, many had to leave their jobs to look after their children full time. Lastly, findings suggest that people with pre-existing mental health and addiction issues were at greater risk for relapse due to the disruption of mental health and addiction services.

Regarding the long-term physical impacts of COVID-19 it was important to acknowledge that at this present stage, research is still undergoing, and the long-term impacts are not yet fully understood. That being, we do not have an exact idea what the long-term impacts of COVID-19 may be 5 or 10 years into the future. With the evidence that is provided however, we were able to identify that ‘long COVID’ is, at this stage, the leading long term physical implication of the virus. Findings also suggested that acute cardiac injury, as well as pulmonary issues, were common amongst patients with severe cases of COVID-19.

Disruptions to health and health maintenance were also a result of the pandemic lockdown restrictions and policies, with thousands nationwide missing out on specialist appointments, surgeries, and specialist treatment due to the disruption to health services and overwhelmed medical facilities.

This literature review drew on common themes and issues that were prevalent in the initial waves of the COVID-19 pandemic. Thus, this report has the potential to suggest future areas

of research for our sponsor Methodist Mission Northern. Emerging from the findings was acknowledgement of marae as the main hub points for support around accommodation and resources in times of uncertainty or adversity. Marae also holds the ability to connect whānau with wider community organizational help services and change agent programs for homeless whānau and/or individuals. Marae were central in many iwi-led initiatives, proving they have the ability to be used in various different healing aspects.

Our second recommendation for future research bases itself on the gap in housing literature. It is likely that research around COVID-19 impacts on housing/homelessness in communities is still undergoing. Thus, the gap in housing literature is majorly influenced by the timing of the establishment of this report. Therefore, it is recommended that Methodist Mission Northern re-evaluate this literature area to see if there are any particular trends or themes around COVID-19 and housing that become prevalent in the near future.

Thirdly, findings suggested the exacerbation of feelings of social isolation and loneliness during the pandemic. This was highly prevalent amongst the elderly, which could have potential research propositions and or insights into the loneliness project, a program provided by Methodist Mission Northern.

Table of Contents

1. Executive Summary	i
2. Whiti (Poem)	1
3. Introduction	2
4. Methodology	2
<i>Taku Pepeha.....</i>	<i>2</i>
<i>Research Question</i>	<i>3</i>
<i>Literature Search Strategy</i>	<i>3</i>
5. Findings	5
<i>Physical Impacts of COVID-19.....</i>	<i>5</i>
<i>Social Impacts of COVID-19.....</i>	<i>9</i>
<i>Mental Health Impacts of COVID-19.....</i>	<i>14</i>
<i>Cultural Impacts of COVID-19</i>	<i>21</i>
<i>Economic Impacts of COVID-19</i>	<i>25</i>
6. Future Areas of research.....	32
<i>Social Isolation and Loneliness.....</i>	<i>33</i>
<i>Connecting with Marae as Community Hubs</i>	<i>33</i>
<i>Housing Insecurity.....</i>	<i>33</i>
7. Conclusion	34
References.....	35

2. Whiti (Poem)

The walls of the Whare are weakening,
The Pillars of wellbeing need healing,
From the utter destruction the pandemic has left in its wake,
There is no pillar it has failed to take
The disruption to the world as we knew it,
The economy, the normality, the acceptable policies,
All shattered and disrupted by a strain of a virus,
We were not ready for the war that lay awaiting for us.

Papatūānuku lays quietly on her back confused,
Staring up at her love Ranginui, rather bemused,
As she fails to hear the footsteps of her people's feet
Coming together to greet and to feast.
The Marae lays still, awaiting its tribe,
For that's what it was built for, for its people to thrive.
And just as the Wharenui started to gather dust,
The doors burst open with a gust,
And in flew the tribe, the people,
The ones with a plan, the ones who wanted to heal
They gathered around, on their ancestral land
And said, 'let's utilize our knowledge, to the best that we can'.

Composer: Ashleigh Witehira, 2023

3. Introduction

On the 30th of January 2020, The World Health Organization declared COVID-19 as a global health emergency. The Ministry of Health reported New Zealand's first confirmed case on the 28th of February 2020, which soon followed New Zealand's first lockdown period that remained in place from 25th March-13 May 2020 (Unite against COVID-19, 2023). The New Zealand government used alert levels to determine safety protocol, with alerts ranging from 1 to 4 (A1-prepare, A2-reduce, A3-restrict, A4-lockdown). COVID-19 restrictions and policies saw a disruption to the economy, normal routines, and social flow and exacerbated already pressing issues within society.

This literature review-based report aims to address how COVID-19 had long lasting impacts on the social, cultural, mental, and physical aspects of well-being on communities, individuals, and workplaces. This report was composed for our sponsor Methodist Mission Northern, a community-based organization who base themselves around social justice and practical change. This literature review aims to identify the main themes prevalent in our findings which in turn may help assist or further develop the various community support services Methodist Mission Northern offer, as well as identify potential future research directions.

4. Methodology

Taku Pepeha

Ko Ashleigh Te-Aroha Witehira toku ingoa

Ko Ngatokimatawhaorua te waka

Ko Rakaumangamanga te maunga

Ko Ipipiri te Moana

Ko Ngāpuhi, Te Whakatōhea, Tainui, me Ngāti Wai oku iwi

Ko Ngāti Kuta me Patukeha oku hapu

Ko Te Rawhiti, Kaingahoa me Nga Tawake oku Marae

No Te Rawhiti, ahau.

This rangahau was undertaken as a part of my raumati internship through Ngā Pae o Te Māramatanga. This opportunity has allowed me to grow both as an academic and as a Wahine Māori. I applied for this rangahau as the kaupapa behind it undertakes a holistic view

of well-being, which is something that aligns with my own interests and studies in psychology, allowing me to expand both my knowledge and understanding of the discipline. It is rather coincidental that my household was hit with its second wave of COVID-19 while composing the report. Thus, now having the virus twice, I am well aware of the toll it can take on all aspects of well-being. My motivation for applying for the internship underlies with my determination to firstly grow academically as both an undergraduate of psychology and as a researcher and secondly, to create opportunities that pave the way for future successes for my family. It is a common stereotype that teen mothers fall behind the education line. Determined to out prove this misconception, I have spent the last six years focusing on my education and qualifications. Coming from a Teen Parent Unit to being at university has secured my life and having the opportunity to take this internship was both an honour and a privilege. My motivation for gaining my qualifications are, and forever will be, for the future well-being of both my children and my iwi.

Research Question

This literature review was guided by the following research question:

“What are the long-term impacts of COVID-19 on the social, cultural, physical and mental well-being for individuals, communities and workplaces?”

Literature Search Strategy

Te Whare Tapa Whā

Mason Durie’s 1984 Māori health model “Te Whare Tapa Whā” was the choice of model in to explore our research question in relation to the long-term impacts of COVID-19 on the social, cultural, and mental well-being (and in some cases physical wellbeing) on individuals, communities and workplaces. Developed in 1984, Durie’s model takes a holistic approach to health by looking at a person as a whole (Mental Health Foundation of New Zealand, 2023). Durie’s model was utilized to assist us in the development of our literature search strategy. Te Whare Tapa Whā as a framework was practical as it facilitated and emphasised the holistic aspects of the rangahau as well as the interconnectedness between each aspect of wellbeing. Furthermore, the model addressed the multi-faceted dimensions within the research question, thus assisting us in our search strategy. Furthermore, we have tried to use the model to draw out spiritual and cultural connections to health and wellbeing to help guide our understanding of iwi led initiatives. Although the model does not directly encompass an economic

component, it became evident through our findings that economic and financial deprivation throughout the pandemic were significantly prevalent. Thus, we incorporated economic and financial impacts as a part of our search strategy.

Creating the mind map

Given that the research question is multifaceted, a mind map was constructed to make sure we addressed all possible angles. Because the rangahau is very broad, the mind map helped to lay out all the dimensions the rangahau needed to cover which enabled us to identify key search terms for the extensive literature search. The literature search was considered complete when the mind map sections were all accounted for in the literature search. As well as the establishment of the mind map, communication with our sponsor Methodist Mission Northern allowed us to tailor the report to their specific interests.

Key search terms

In development of key search terms for the literature review, the research question was broken down into its various topics of interest. For example: The sentence “long term impacts of COVID-19” was matched with key words contained in the research question such as “social” “cultural” “mental” and “physical”; i.e., “long term impacts of COVID-19 on social wellbeing”. So, a typical search would look like “COVID-19 impacts on the mental health of children” which opened further doors such as increased rates of child abuse during COVID-19 lockdowns. Other key search terms included the following:

- *Individuals*” (further broken down to “women” “men” “children”)
- *Workplaces*”
- *Communities*” (further broken down to “Māori communities” “Pasifika communities” etc).

Search engines used

University library data bases as well as google scholar were the main search engines used to conduct the literature search. Our priority sources were academic journals and peer reviewed articles. AlterNative, SAGE journals and Science Media were our most frequently used academic journal sources. While academic journals/articles were of our top priority, newspaper articles, news clippings (1 News, Te Karere, Breakfast) social media, and radio interviews (Radio New Zealand) were also utilized in the search strategy, as they helped to broaden the sources of the literature view while having a particular focus on community

perspectives. Furthermore, these secondary sources helped to analyse professional opinions from relevant individuals/organizations on the impact of COVID-19 and its dealings.

Source Credibility

Each source was checked for credibility and relevance to the research question by the following processes.

1. Utilisation of reliable search engines and peer reviewed journals/journal search bases
2. Researching the author (s) of each source to check their credentials, and any other written literature they may have done in the past. If the author (s) did not have further published papers or their listed credentials did not match what I found on google the source was disregarded.
3. Checking the sources reference list and clicking on some references to make sure the information contained in the source i was interested in was reliable. Checking the reference list was also often beneficial to the literature search as I often came across articles that I could utilize and that suited our kaupapa.

5. Findings

This section presents the findings of the literature search and review. The findings are broken down into various sections to address the long-term impacts of COVID-19. This section presents literature that examines the long-term impacts of the pandemic on the social, cultural, economic, mental, and physical aspects of wellbeing. Each section is presented with the main themes and findings that proved to be prevalent in the extensive literature review. The report then finishes with recommended future areas of research for our sponsor Methodist Mission Northern.

Physical Impacts of COVID-19

COVID-19 was first identified and recognized as a virus in Wuhan China on January 7th, 2020, after 44 patients experienced pneumonia-like symptoms and were reported to the World Health Organization on the 31st of January 2020. The first case of COVID-19 to be reported in New Zealand was the 28th of February 2020, nearly two months after the first onset cases in China. This means the virus has been around for approximately three years, which is not enough time to know the definitive long term physical effects of the virus due to the absence of longitudinal studies. This research is still undergoing. However, cases of minor cardiac injury, pulmonary distress as well as long COVID are prevalent findings in

current research literature relating to physical impacts, suggesting the organs that may be vulnerable to the virus. It is important to acknowledge that the term ‘long term’ in this context is rather vague. That is, the concept of ‘long term’ to some may be months, years, or decades. In this context of the report, ‘long term’ can be conceptualised as any time frame that is more than a month that impacts one’s physical wellbeing and quality of life (World Health Organization, 2021).

Long COVID

According to Science Media Centre (2021), long COVID can be conceptualised as a range of symptoms (or specific symptom(s)) that occurs within 3 months of recovery in individuals with a history of COVID-19 infection. Research regarding long COVID is still undergoing however current data suggests that symptoms may anywhere from weeks to months, with time being the only healing factor. Symptoms may persist from the initial onset of the virus, come, and go, or arouse weeks to months later after recovery. Furthermore, symptoms are various and wide ranging and new sets of symptoms can often appear spontaneously. Most reported symptoms of long COVID include fatigue, breathlessness, and issues around mental clarity. According to Science Media Centre (2021), long COVID can be broken down into two stages: stage 1 being ‘post-acute COVID’ with symptoms lasting beyond three weeks. Stage 2 of long COVID is known as ‘chronic COVID’ and is justified as such when symptoms linger beyond 12 weeks of first exposure.

According to Raveendran et.al (2021), a research report conducted within multiple hospitals across Italy in 2021 found that 87% of people discharged and now COVID free were still showing at least one symptom more than sixty days later. 32% experienced 2 or more symptoms, and 55% reported experiencing 3 or more symptoms. The main symptoms experienced by patients discussed in the report were similar to those expected by the World Health Organization (2021) with the top three reported symptoms being that of fatigue (53.1%), worsened quality of life (44.1%) and shortness of breath (43.4%). Dr Moana Jeffreys, an epidemiologist at Victoria University expects that more than 200,000 of COVID confirmed cases are likely to result in long COVID. Jeffreys independent study recruited 373 people with long COVID to understand their experiences of long COVID. Nearly half of the total 373 participants reported that long COVID had affected their ability to carry out normal tasks and tasks, with many cases being so severe it affected their familial and social lives (Science Media Centre, 2022).

Acute Cardiac Injury

According to The Heart Research Institute (Jennings, 2021) myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the outer lining of the heart) have been seen in patients with severe COVID-19 cases and/or long COVID. There is a widespread misconception that myocarditis and pericarditis are direct links to the vaccine. Although this can happen in very rare cases, both myocarditis and pericarditis normally result due to an inflammatory immune response to the virus itself. Untreated or severe cases of myocarditis can lead to adverse health events such as a heart attack, stroke caused by the onset of blood clots. In severe cases both myocarditis and pericarditis can also result in irreversible heart injury and heart failure. A study conducted by the Heart Research Institute found that other cardiovascular symptoms seemed to be prevalent amongst COVID patients, especially those experiencing long COVID. These symptoms included tachycardia (fast heart rate), bradycardia (slow heart rate), chest pain and fainting. Out of 3,700 study participants, 90% of the total cohort reported that their recovery of these symptoms lasted over eight months.

Pulmonary Issues

According to the Asthma + Respiratory Foundation NZ (2022), the most at-risk group of people to suffer from long term pulmonary issues from the virus are those with pre-existing respiratory conditions such as asthma, COPD, emphysema, cystic fibrosis, bronchiectasis, and chronic lung disease. Although research regarding the long-term pulmonary effects of the virus is still undergoing, there is evidence to suggest that both lung injury and damage are existing realities of the virus. Pulmonologist Panagis Gallatsatos paired up with Johns Hopkins University to discuss COVID-19 and its potential effects on the respiratory system. Gallatsatos (2022) explains that pneumonia, bronchitis, acute respiratory distress syndrome (ARDS) and sepsis are all illnesses that can be brought on from COVID that can cause lung injury, and potentially, lung damage. The symptoms of each illness (including coughs, congestion, shortness of breath, pain) can persist for weeks to months, having the potential to decrease one's quality of life. Lung injury itself which can be a result of a respiratory illness can take 6 months to a year or longer to heal, with uncomfortable symptoms accompanying the healing process. Furthermore, respiratory illnesses such as the ones listed above have the potential to cause pulmonary scarring, irreversible damage to the lungs.

Disruptions to Healthcare Access

The onset of the pandemic and the introduction of new variants saw COVID-19 dominate the country's health focus. Between August 15th and October, the 24th (time frame of the first delta case in NZ), approximately 102,959, roughly 10,000 per week, planned procedures were deferred. Additionally, 43,700 specialist appointments (when the patient first assessed by a specialist based on a referral) were cancelled nationwide. Diagnostic radiology scans were also affected, with 10,629 scans cancelled across the country. All DHBs nationwide were impacted, however statistics show Auckland and Waikato had the largest percentage of cancelled procedures, specialist appointments and scans (Martin, 2021). New Zealand's Health Minister Andrew Little commented on the issue, claiming that the health system has "long been under stress" and COVID-19 has put significant pressure on already pressing issues. Thus, it is fair to say that COVID-19 is not the sole cause for delayed health interventions but instead has exacerbated areas of struggle within the healthcare system. According to Martin (2021), the government funded DHBs nationwide with 50 million in the hopes to speed up the waiting list process. However, it is likely recovering from thousands of delayed appointments will take many months.

Shane Reti, National's health spokesperson, rebutted Andrew Little's claim, as he believes that the Government was slow in preparing and strategizing for the pandemic outbreak. Reti stated "That's missed cancer diagnosis, deferred cataract removals and delayed hip replacements. It's more suffering and pain for New Zealand families" (Hewett, 2022). That was the reality for cancer patient Ewan Ritchie, who waited 10 months to receive his prostate cancer diagnosis. Ritchie, who had a lump on his prostate, had to wait 3 months for a specialist appointment + MRI scan, wait 7 weeks for the results of the MRI and then be told he had to wait another 5 months to get a biopsy done. Ritchie said that the wait time affected him mentally and was hard on his family. He told producers "It's gnawing on your mind constantly, knowing that this 'thing' may be there. You can't really get on and live your life. It's just a constant presence really." Ritchie explained that he knew that catching cancer early meant a higher survival rate, and with the wait being so long he decided to take out a reverse mortgage on his home to get treated through private care (Hewett, 2022).

Social Impacts of COVID-19

In this context we can refer to ‘social impacts’ as any influence COVID-19 or its restrictions /policies have had on community attitudes, familial/social relationships, or human social connections in general. Social isolation/loneliness, strained parent/child relationships, increased technology use, and community attached stigmas are all factors that have, and may continue to have, an impact on the social wellbeing for many individuals, communities, and workplaces worldwide.

Social Isolation and Loneliness.

COVID-19, particularly within the context of lockdowns, have exacerbated feelings of social isolation and loneliness. It is important to acknowledge that social isolation and loneliness are not the same but are rather two sides of the same coin. Social isolation is dependent upon social contact in terms of volume and frequency, whereas loneliness are feelings of dissatisfaction towards one’s social life in terms of social encounters and social support. It is also important to recognise that while social isolation is a risk factor for loneliness, it is not a direct cause. That being, many people may be socially isolated and not feel lonely (Social Wellbeing Agency, 2020). Thus, it depends on the individual. However, individuals experiencing social isolation for long periods of time (such as lockdowns) are at higher risk for developing feelings of loneliness. This is concerning given that there is a link between loneliness and overall wellbeing.

Potential long-term impacts of loneliness can be detrimental to both physical and mental health. According to the Social wellbeing Agency (2020) and Dobson (2022), studies have shown loneliness increases the likelihood of poor physical health, cardiovascular disease, lowered immunity, and premature death. Mental health issues are also prevalent amongst those experiencing loneliness. These mental health issues can range from but are not limited to depression, social anxiety, and suicidal ideation which can lead to actions of self-harm or suicide. While social isolation/loneliness is not discriminative, the elderly and youth are more susceptible to experiencing loneliness and its various long-term implications.

Social Isolation: The Elderly

Common themes have emerged from the literature that suggests that elderly communities are more likely to be socially isolated and are therefore at a greater risk for experiencing feelings

of loneliness. Being empty nesters, widowed, or suffering from a chronic illness or impairment such as hearing loss are all lifestyle factors that significantly influence an elderly person's susceptibility to loneliness. With regards to the elderly, the long-term effects of loneliness mirror the ones previously mentioned above. However, in some cases, they can be more detrimental, especially for those with underlying cardiovascular issues. According to The Centres for Disease Control and Prevention (2021), loneliness is associated with a 50% increase in dementia, as well as an increased risk of heart disease by 29% and stroke by 31%. Furthermore, elderly who have predisposed heart conditions have a concerning 4x increased risk of death, a 68% chance of increased hospitalization, and are 57 times more likely to visit the emergency department.

The disruption to usual social interactions due to the threat of the virus itself as well as lockdowns and restrictions have exacerbated issues around social well-being in older people. Disruptions to simple routines that keep them active and independent such as grocery shopping, doctor appointments, or involvement in social groups (i.e., exercise classes) are likely to have increased feelings of loneliness, especially for those who live on their own. According to Tinirau et al. (2021), the stigma of 'vulnerability' attached to the elderly affected aspects of their social well-being during the pandemic. While vulnerability is a core concern to consider in terms of the virus, many elderly throughout the study felt as though they were shut out of their communities when many of them had the skills and knowledge to help, thus intensifying feelings of loneliness. A lack of technology and technological skill amongst the older generation are also contributing factors to social isolation and loneliness during the pandemic. To elaborate, usage of social media or video calling platforms such as skype, zoom, or WhatsApp are less commonly used amongst older people with many of them relying on calling or texting. While this is sufficient in normal times, communication via video chat platforms was the closest thing to normal human connection during lockdowns.

Increased Life Stressors for Whānau

According to Science Media Centre (2022), Auckland-based child psychiatrist Dr. Hiran Thabrew argues that the disruption of normal social flow such as regular contact with peers and extended family has had an impact on youth mental health, especially for those who have strained relationships at home. Many parents/caregivers struggled with the various disruptions that the pandemic surfaced. Job factors such as an increase in work demand, recent unemployment, household commitments, and childcare obligations saw many parents

stressed and worn out. Balancing these factors while undergoing social change is likely to take a toll on relationships within the household. Thabrew (Science Media Centre, 2022) argues that younger children can experience the implications of loneliness, especially during times of lockdown.

Research by Barbore et al. (2021) investigated the effects on parental stress and child mental health during the initial waves of COVID-19. 206 Italian mothers and their children participated in an online self-assessment survey that was passed onto them by local headmasters of the area. Barbore et al. (2021) identified that stressed parents tend to be less sensitive and consistent toward their child's needs. Parental stress affects the parent-child relationship, and higher levels of stress may affect parental style and therefore create dysfunctional interactions. Considering lockdowns prevented normal social flow between peers and extended relatives, the parent may be the only source of adult communication the child may have. This is difficult as many parents had more than one child to care for during lockdowns as well as having to balance other responsibilities and commitments. Thus, a child not receiving adequate amounts of attention via healthy amounts of interaction/communication from the parent puts them at risk of social isolation, despite having a parent in the home. According to Thabrew (Science Media Centre, 2022), feelings of loneliness experienced in childhood can have long-term impacts on a child's health and well-being as well as their mental and educational development making it a cause for concern.

Family Violence

COVID-19 has significantly exacerbated issues around domestic violence abuse worldwide. United Nations Women (UNW) is committed to promoting women's empowerment and gender equality argue that although domestic violence was an already prevalent issue, COVID-19 related stressors have heightened tensions in the home thus exacerbating violence against women (Billi et al, 2021). Research carried out by UN women across 13 countries analysed self-reported survey results of 16,000 women to gain insight into domestic violence experiences during COVID-19. 45% of women from the survey (either self-reported or reported on behalf of someone they knew) reported experiencing some form of abuse since the onset of the pandemic. 56% felt less safe in their own homes, 21% were denied communication with the outside world, and 7/10 women felt that verbal and physical abuse had become more prevalent since the onset of the pandemic. Survey statistics suggested that verbal abuse and the denial of basic resources were the two most common forms of abuse

reported by women in the survey (Billie et al, 2021). There is often a common misconception that violence against women' is solely related to physical violence. It is important to acknowledge that while the majority of domestic violence cases do in fact contain behaviour, there are other forms of abuse such as emotional/verbal abuse, sexual abuse, or the denial of communication/access to basic resources.

Long-Term Impacts of Domestic Violence

According to UN Women, there are various forms of literature that demonstrate findings proving the direct relationship between domestic violence and mental health issues. The most commonly experienced mental health issues in domestic violence victims include depression, anxiety, Post Traumatic Stress Disorder (PTSD), suicidal ideation, and acts of suicide. Over 41%, just under half of all women in the study, reported that their mental and emotional health deteriorated as a result of domestic violence during the pandemic (Billi et al,2021). According to Rengasamy et al. (2021) there are various risk factors that increase the likelihood of experiencing domestic violence. These factors can be split up into three groups: Individual factors, family factors, and community factors.

- **Individual factors:** drug and alcohol abuse, mental health issues, economic hardships, parenting stress.
- **Family factors:** history of family abuse, isolation, unemployed head of household (s).
- **Community factors:** unstable housing/and or living conditions, poverty, residing in low socioeconomic areas, changes to support systems, networks, and organization

Child Abuse

Majority if not all of the risk factors listed above were heightened due to the pandemic, most likely contributing to the significant rise in child abuse cases (Billi et al, 2021). COVID-19 almost acts like a domino effect when looking at the effects of abuse on children. For example, COVID hits, the economy is disrupted, and many people face threats to economic security. The stress of economic hardships on the parent/caregiver is dealt with differently depending on the individual themselves, how well they cope with stress, their support system, and various protective factors. Theoretically, if a parent carries the stress of economic hardship heavily, he/she is at an increased risk of developing mental health issues and/or engaging in substance abuse. Moreso, stress levels can alter how one engages and responds to their child, which in unfortunate cases, could be violently. The child who experiences the abuse or is exposed to domestic violence is cut off from their normal support networks such

as school and extended family that may be able to help, thus making the effect of the abuse even more traumatic. The child is then at risk for long-term implications regarding their own well-being and development across the lifespan. What's more, adverse childhood experiences put the child at an increased future risk of substance abuse, violent relationships, mental health issues, and developing chronic diseases such as diabetes and cancer (Rengasamy et al., 2021).

Protective factors significantly influence whether one continues to endure domestic violence. Protective factors include social services like Women's Refuge, schools, and strong support networks such as family/friends. According to Rengasamy et al. (2021), the closure of schools over the lockdown periods would have seen many cases of child abuse and neglect go undetected as schools/day-cares account for a significant proportion of referrals to social services. The closure of schools prevented child protection medical examinations that are able to take place in a school setting by a health provider and are carried out if there is suspected neglect or abuse of a student. In New Zealand, this process comes under section 125 of the Health Act (Ministry of Health, 2022) and is heavily relied upon to confirm cases of child abuse and report them to social services.

Increased Technology Use

The use of technology is rising yearly, with younger people making up a large proportion of users. COVID-19 has only exacerbated this, with technology being heavily relied upon for educational, social, and entertainment purposes during lockdowns/self-isolation. UNICEF (2020) suggests that the long-term consequences on social well-being from heavy technology use are plentiful. For example, adolescents experiencing social isolation are more likely to participate in 'risky behaviours' due to a lack of face-to-face contact with their partners and peers. Sending sexual or explicit content is an example of such behaviour and could have detrimental effects on an individual's social and mental well-being if they were leaked. More screen time also means younger people are more vulnerable to experiencing forms of cyberbullying as teens tend to post more and share more. While younger people may be more technologically inclined compared to the older generation, it is no doubt that some of them lack the skills to protect themselves online. Reports show that online sexual predators and groomers were highly prevalent among social media platforms during COVID-19 lockdowns, risking teens of being exploited and manipulated. Communicating with predators could lead to exploitation and dangerous encounters which in turn could lead to long-term impacts on

mental-being such as trauma, anxiety, depression, and PTSD. Younger children who had unlimited and unsupervised screen time were also more at risk of being exposed to inappropriate or violent content. Exposure to violent or sexual content has the potential to cause trauma-related issues within the child and affect their perception of the world, which could affect their view of the world.

Mental Health Impacts of COVID-19

COVID-19 and the many challenges it has brought has exacerbated mental health related issues as well as caused an onset of new cases in normally mentally well individuals. Adopted policies and restrictions, threatened economic security, work burnout, an increase in juggled responsibilities, a disruption to support systems and experiencing bereavement are all contributing factors to psychological distress. To clarify, mental health is significantly interconnected with each aspect of wellbeing mentioned in this report (social, cultural, physical, economic). The long-term impacts of the latter bring some degree of psychological distress thus factors of mental health have already been weaved and demonstrated throughout each section.

Vulnerable Groups

Essential Workers

According to Haar and Okane (2022), unexpected adverse events, such as pandemics or natural disasters can also produce significant emotional reactions from people. The threat of the virus itself and how it may affect them, their loved ones or their economic stability has caused significant levels of anxiety for many individuals within the community. This is a cause for concern as the virus is not going to be quick to eliminate completely, making these anxieties likely to remain long term. Haar and Okane (2022) investigated the burnout risk amongst New Zealand's essential workers during the COVID-19 pandemic. This was accomplished by comparing BAT scores from 955 essential and non-essential workers from various occupations within New Zealand. Work burnout is conceptualised by Haar and Okane (2022) as "...work related to exhaustion that occurs among employees, which is characterised by extreme tiredness, reduced ability to regulate cognitive and emotional processes and mental distancing". According to Haar & Okane (2022) findings, essential workers had higher burnout reports (14%) compared to that of non-essential workers (9%). Additionally, reports of mental health issues amongst that of essential workers were 20 times higher than non-essential workers. An increase of shifts/work demand, shortages of

staff and the obligation of care by going the extra mile for patients despite exhaustion were all factors contributing to burnout. Separating patients from their families during lockdowns was not easy and contributed to job depression and anxiety related trauma for many nurses. Multiple in-home care nurses also reported experiencing prolonged trauma as a result of losing patients to COVID-19. Holyryd et al. (2022) found that workers justified their hard labour and sacrifices for their obligation to ‘duty of care’ and many felt a personal responsibility to patients they had built bonds with pre-COVID period. Going the ‘extra mile’ for patients during lockdowns was inevitable for many health care nurses such as Rachel, who explained that she was emotionally invested in some of her older patients. She explained *‘With time, you gain connection, and you share a part of yourself with them.’*

Anxieties around contracting the virus and spreading it to family/vulnerable patients was also a burden many healthcare workers carried. Escalating levels of anxiety continued despite lockdown levels coming down. Attending to their patients in isolation plus their need for constant vigilance contributed to heightened levels of fear and psychological distress. A nurse from the study (Kelly) explained how it contributed to crippling levels of anxiety. She says *“I feel like a tap has been turned on and all the anxiety of my life is running non-stop. I still don’t think it has stopped.”* This statement from Kelly came from an August (2021) survey, 1 of 4 surveys of Haar & Okane (2021) research, revealing that such anxieties persisted for many months after the pandemic was controlled in New Zealand.

It is appropriate to argue that essential workers had unique experiences given most people were working from home during the pandemic. However, this is not to say that employees working from home were not at risk for work burnout. This is where the COR theory becomes relevant in practice. The Conservation of Resources theory (COR) helps to understand human behaviour in the context of employment when it comes to acquiring, conserving, or maintaining resources. The COR theory argues that those who have fewer resources (i.e., those with lower incomes such as single parents, those on minimum wage etc) would be at a higher risk of burnout due to working harder and longer to require resources (money) and maintain resources (i.e., food, housing costs etc) thus risking poor mental health outcomes and feelings of job satisfaction.

Māori Youth

New Zealand continues to have the worst suicide rate (19.3 per 100,000 young people) among OECD countries. These levels are mostly represented by young people and Māori, making it a cause of concern for both groups. (36.4 per 100,000 Māori). Levels of individuals experiencing self-harm and suicidal ideation as well as food eating disorders such as anorexia during the COVID 19 period have risen according to data from hospitalizations and inpatient admissions which are up by 25% in the Auckland region. Thabrew argues that levels in these areas of mental health will continue to rise over the next few years and will be identified as a long-term impact of the pandemic (Science Media Centre,2022).

Increasing inequity for people and families

The pandemic has created a greater divide between the rich and poor and has exacerbated inequalities and inequities in and around health and resources. According to Hall et.al (2022) pre COVID-19 era, low income and minority groups were three times more likely to experience disproportionate suffering (around food security, maintained economic stability, housing and access to healthcare) compared to that of the general population. The pandemic intensified these insecurities for many, with the possibilities of worsening or the coming of new issues around financial hardships, affecting food insecurity, housing, and the maintenance of utilities. Furthermore, for many the lack of transport/availability of public transport had the potential to affect one accessing resources or medical care. Experiencing or worsening socioeconomic deprivation was associated with a number of long-term mental health issues including but not limited to depression, anxiety and PTSD. Furthermore, there is a well-recognized link between suicide and economic hardship, making socioeconomically disadvantaged individuals a high-risk factor group.

Homeless individuals/whānau

There is yet to be solid sets of data and statistics around an increase of homelessness in general during the pandemic area. However, what we do know is that there are iwi lead initiatives that have signalled an increase in homelessness amongst Māori whānau. Despite a gap in this research area, it is fair to say that because of the economic disruptions to financial security and stability homelessness or unstable housing may have been a reality for many. Regardless of whether homelessness circumstances were due to adversities brought on by COVID-19 or whether it was a pre-existing issue pre-COVID period does not excuse the fact that it can have serious impacts on mental health and wellbeing in general.

According to Sharma & Aggarwai (2020), homelessness can be defined as a lack of elements that contribute to one's safety, security, stability, and privacy within a living space. Unmet needs, poverty, stigma, and food insecurity all factor into psychological stress risking mental health issues for the homeless population. Sharma & Aggarwai (2020) argue that issues around economic stability and pre-existing mental health issues are contributing factors towards homelessness, two factors of wellbeing that were majorly influenced by the pandemic. Psychiatric disorders, predominantly psychosis, are three times higher in the homeless population. Homeless people, especially those with psychiatric disorders, are much more likely to be infected with COVID-19 due to a lack of resources thus lowering immunity. Additionally, homeless individuals suffering from psychosis may not be aware that they have contracted the virus or how to treat it and get help. This can result in an increased risk of long COVID or pneumonia.

Not all homeless individuals/families live life on the streets. Emergency accommodation is offered to many whānau struggling with being able to apply, afford and maintain housing. Each circumstance is different. For example, many families find themselves 'couch surfing' or living in emergency accommodation. The downside to staying with family/friends is that it threatens a sense of security and also may intensify feelings of shame and burden. While emergency accommodation can be beneficial for most, there are times when whānau are placed in motels where a lot of other homeless reside.

Young LGBTQ+ Community

LGBTQ+ youth were also at risk of developing or worsening mental health related issues. Rainbow youth, an advocacy and support organisation for the young queer community (Rainbow Youth, 2021), expressed their concerns around younger LGBTQ+ communities experiencing discrimination and abuse from transphobic family members due to many having no choice but to move back to their family homes during the lockdown period. A survey conducted by Rainbow Youth investigated the health and wellbeing of gender diverse New Zealanders. Findings suggested that out of all survey respondents whose families knew of their gender diverse status, one quarter of them were not allowed to wear the clothes that matched their gender identity. A Rainbow spokesperson elaborated on this, stating: *"Being isolated with family that are unaccepting with no avenue to safely express your identity will definitely take its toll on mental health."* Rainbow youth, who also provide counselling for young LGTQ+ communities reported barriers to accessing external support, in fear that their

families within their bubble would overhear them. Not being able to access external support networks such as rainbow youth and being away from usual social support networks such as peers contributed to mental health decline for many younger LGBTQ identifying individuals.

Economic Insecurity for Women

Information provided through a report from UNW (Billi et al.2021), gives valuable insight into the hardships women faced that put them at a higher risk of developing long term mental health issues. Findings from the UN report suggest that over 62% of women found the pandemic affected their mental wellbeing. The UNW elaborated further upon why women were more likely to experience mental health related issues during the pandemic. Economic shock was one reason. Women made up large proportions of employment in the hospitality, tourism, and retail businesses, which were severely affected by COVID-19 due to business liquidations/failures and the disruption to the trading economy. This left many women faced with less hours, pay reductions and in many cases, unemployment. What's more, women in frontline jobs had to make the choice between their own health, the health of their families, or economic security.

Women: Gender Roles

Stereotypical gender roles were a major contributing factor of psychological distress for women, especially for that of mothers. According to Billi et al. (2021), mothers who take on unpaid childcare and domestic care are 1.6 times more likely to experience mental and emotional distress. Many mothers were expected to balance work life, domestic household chores, childcare, and home-schooling with little to no support. Moreover, they are also the main providers of emotional support and reassurance for their children, which proved to be difficult at times, especially for single mothers and mothers of multiple children. Balancing these responsibilities on top of adversities brought on by COVID-19 (economic issues, job stability, lack of social support, closure of schools etc) saw many mothers burned out and extremely vulnerable to depression and anxiety. Mothers who worked from home during lockdowns also had the pressure to adapt to new work protocols that fell in line with COVID-19 related policies, often having to learn new tools in a short amount of time. Adapting to new work protocols, working from home, and trying to take on various roles such as a carer, teacher, cook and cleaner proved to be a lot for some mothers, with a participant from Hall et al's (2022) study describing it as 'psychologically demanding'.

Individuals With Pre-existing Mental Health Disorders

According to The World Health Organization (2022), individuals with previously diagnosed mental health disorders are at a greater risk of either a relapse or the intensification of their pre-existing psychiatric condition. WHO (2022) argues that those with pre-existing mental health disorders are at a much greater risk of developing severe illness and mortality as a result of the virus and should be considered a part of the high-risk group upon diagnosis of infection. A study conducted by Kahawage et al. (2022) included Professor Richard Porter, Head of department of psychological medicine at Otago University, who gave insight into the study's findings. The study taking place from April-June of 2020 analysed self-questionnaires of 997 participants (from New Zealand, Australia, Holland, and Canada, 521 participants being from New Zealand) 50 percent of the cohort being previously clinically diagnosed with bipolar, the other being previously clinically diagnosed with depression (University of Otago, 2022). According to Porter, over 40% self-reported moderate to severe depression during the first lockdown of 2020. Porter acknowledged that this is largely due to a disruption to the circadian rhythm, a disturbance to sleeping and eating patterns as well as a disruption to normal routine and social flow. Porter argues that the fact that over 40% of these already vulnerable people reported such levels of distress on top of their pre-existing conditions is a cause of concern. Porter further argues that COVID-19 lockdowns are not the last form of nationwide disruptions, and that there is a need to recognise the link between Pre-existing mental health disorders and the disruption to circadian rhythm and routine and educate our most vulnerable how to manage their levels of wellbeing to the best of their ability.

Disruption to Mental Health & Addiction Services

The delay and restriction of mental health and addiction services was another significant impact of COVID-19 lockdowns. According to Rodda et al. (2021), The New Zealand Ministry of Health instructed mental health and addiction services to be provided via phone/online consultation, with only the most severe cases being treated urgently under community mental health services that operated under strict public health guidelines. Because of this, treatment for many individuals have been postponed, or clinicians have had to adopt new distance orientated treatment methods for their patients (phone consultations/video calls, sending of resources for therapeutic books). While distant treatment suits some, distant treatment options bring forward issues around access and equity. For example, no/or limited access to home internet, limited financial ability to maintain phone/computer data, minutes

and broadband, slow download speed of therapeutic resources as well as a lack of devices for video consultations are all factors that affected distant treatment (Rodda et al,2021).

According to clinicians interviewed in the study, the home as a treatment setting was also a limiting factor for many clients. Unlike clinical settings, some homes lacked the environment of a safe and private space, while others struggled with frequent disruptions from their quarantine bubble. Presumably due to these factors listed above, A\according to clinicians from the study, many patients chose not to or were unable to hold their sessions via video telecommunication. This was an issue for many clinicians, especially those specialising in addiction, due to the absence of visual cues around intoxication. Two youth workers working with a teenager via phone conference also found limitations to assessment given the absence of visual cues. The teenager (mental health condition unspecified) sounded ‘too relaxed’ via the consult and the conversation lacked ‘intensity’, leaving the youth workers to feel that something was ‘off’ with the patient.

There were reports of dissatisfaction towards the efficiency of mental health services by many New Zealanders. Officer et al. (2020) examined experiences of primary and specialist mental health and wellbeing support during lockdown periods by interviewing participants who experienced mental health related issues during lock down periods. Findings suggested that the majority of participants found it difficult to find information regarding support/treatment options during lockdown, connect with mental health helplines due to availability, and access residential treatment facilities/respice care due to overloaded capacity. Two participants from the study provided insight into their experiences:

“I freaking attempted suicide... I felt I couldn't even seek mental health care because the services were already stretched more, and they had to go slower to disinfect everything between people. So, I got no help. Nobody knows what happened and I'm still stuck.”

(Anonymous participant, female, 18-24 yrs.)

“I have been unable to access mental health services during the second half of the lockdown as my psychologist became unavailable. This has severely impacted my mental health during transition periods between alert levels.”

(Anonymous participant, female, 34-44 yrs.)

These statements emphasise how lockdown had a significant impact on the delivery of mental health services and how these disruptions intensified pre-existing mental health issues in some individuals. However, regardless of the disruption to normal treatment plans it is important to acknowledge that many clinicians, counsellors, and psychologists worked tirelessly to mitigate the issues for their patients/clients. Many workers in this field had to adapt to new processes and protocols for online delivery for patients, which according to Officer et al. (2020), was difficult for some given limited support, training, and notice.

Cultural Impacts of COVID-19

Cultural long-term impacts can be defined in this report as any factors relating to the pandemic that has interfered with or interrupted cultural practices, cultural norms, or cultural contributions. Given the reports interest in Aotearoa New Zealand literature, this section will particularly focus on the long-term cultural impacts of Māori. It is important to acknowledge that while this section is dedicated to cultural impacts, mental health factors will weave through the section. This is inevitable given that cultural factors and mental health are significantly interconnected.

Compromised Tikanga: Death, Dying & Tangihanga.

Tikanga are values, practices, and customs, deriving from Mātauranga Māori. The word ‘tika’ means correct, appropriate or fair. Tikanga sets the foundation for all things Te Ao Māori and creates structure around decision making and thought processing. Thus, tikanga is a core aspect of Māori culture, and was significantly challenged through the various alert levels of the COVID-19 pandemic. In Te Ao Māori, death is as much of the Māori world as is life” (Rangiwai & Sciascia, 2021).

COVID-19 policies and restrictions have disrupted and complicated the grieving process for many families in Aotearoa. In a Māori context, the disruption of tikanga during death and dying can cause prolonged grief, which can potentially escalate into chronic grief.

Tangihanga present a therapeutic, symbolic, and ritualised process for grieving and healing (McRae, 2010). According to Donnelly et al. (2020), COVID-19 bereavement has the potential to cause higher grief disorders compared to that of natural bereavement, with bereavement disorders ranging similar to bereavement after suicide or homicide. This is concerning given that complicated grief is likely to be a public health crisis we are already facing.

During alert levels 3 &4, hospital restriction policies that were put in place to protect the community from COVID-19 ultimately contributed to added stress for both the individual hospitalized as well as their whānau. A study done by Donnelly et al. (2020) conducted interviews with 23 deceased individuals next of kin (6 were Māori whānau) who had recently died in Wellington Hospital during alert levels 3&4. The main agenda was to understand their bereavement experiences when patients died during the primary waves of the pandemic (cause of deaths were unrelated to COVID-19.) Main themes became evident when interviewing many Māori whānau. These themes included: feeling dissatisfied that their cultural preferences were not met (i.e., tikanga such as karakia, involvement in handling the tūpāpaku and having to leave the body alone.) A person becomes tapu as they approach death as well as upon their death which is why specific tikanga protocol are of utmost importance to both the individual and their whānau (Rangiwai & Sciascia,2021). According to whānau from the study, not having staff familiar with tikanga protocol was a contributing factor to their distress, with one wahine commenting ‘we told the ICU staff we don’t leave our people alone like this. Not having the support, it was quite hard, quite lonely’. While staff were only following hospital protocol, it made whānau distressed to know that only half of them (3/6 whānau) were offered whānau care services. Donnelly et.al (2020) explains that understanding culture is essential for meeting people’s unique needs in hard times. Thus, it is important that there is effective communication between hospital staff and whānau. Furthermore, having Māori staff who are familiar with tikanga is significant in order to make death and dying as dignifying as possible.

Regarding the rules and regulations around tangihanga, level 2 restricted tangihanga gatherings to 100 people, level 3 to 10 people, and level 4 saw tangihanga banned. Although differentiating in severity, all alert processes had, in some way, an impact on cultural participation in tangihanga. The lack of presence from whānau that offer psychological support during times of bereavement may also affect the grieving process. It is common for families to travel from all around New Zealand- and in some cases the world, to attend tangihanga. Family not being able to come together physically and awahi each other through hard times is hard given Māori are a strong collectivist culture. Family coming together as one encourages the immediate whānau to mourn openly and not hold back so that they can grieve in a healthy way, which is important for both mental and spiritual wellbeing. According to Dawes et al. (2020), Roimata (tears) and Hupe (mucus) are important bodily

fluids that proceed during tangihanga. Roimata and hupe shed upon the tūpāpaku is an act of love, holding deep symbolic meaning in Māori culture. The flow of these bodily fluids kanohi ki te kanohi allows whānau to mitigate the feelings of grief and give and receive awahi.

Returning to one's whenua is of utmost importance to both the tūpāpaku and the whānau themselves. The enactment of tangihanga within tribal lands strengthen relationships between people, place and shared histories, but also allows the bereaved to support the spirit of the deceased onto the afterlife (Nikora et al, 2013). Thus, one's whenua holds both a physical and spiritual connection to both the deceased and the living through emotional ties, the mauri and the connection to Papatūānuku. What's more, whenua emphasises the importance of whakapapa and shapes our identity, therefore not being able to return to one's ancestral lands during lockdown or for tangihanga would have caused immense spiritual pain for many Māori. Many of the deceased during level 4 lockdowns had to be buried in the nearest cemetery to the morgue or frozen until levels dropped. Being unable to have a proper tangihanga fit for tikanga protocol as well as being buried away from one's ancestral land compromises spiritual well-being for not only the tūpāpaku but also whānau members themselves. The whānau being unable to provide a normal tangi and burial may feel that the spirit is not properly at rest and thus may carry feelings of guilt, shame, and intense sadness.

While it is true that digital platforms were of significant value and use to whānau that were unable to attend tangihanga, technology did not excuse the fact that a core value of tikanga in tangihanga, kanohi ki te kanohi, was broken. The disruption of tikanga around tangihanga as well as attending tangihanga kanohi te kanohi had impacts upon whānau of the deceased. This was especially true for a whānau in Auckland who suffered a bereavement amid the alert level 4 tangi restrictions (Te Karere broadcast,2021). Gloria Vetekina, the sister of the deceased, spoke to producers about how restrictions had interfered with normal tangihanga protocol and how it influenced her family. Her family were not allowed to dress or touch the body, something she says her, and her family struggled with. She explains "*We would always awahi the body, we would always kihi our whānau and to not be able to do that is foreign. It's going to be hard to say goodbye to him from so far away.*" As far as tangihanga protocol Gloria says, "*We're used to being able to see our whānau off very closely, and to not have that opportunity I can imagine this is something that is going to stick with our whānau for a very long time*". This is concerning, considering there are likely many whānau out there

still struggling with the trauma associated with tangihanga restrictions that may pose risk to their long-term mental health.

Adaptation of Tikanga

As previously mentioned, during the initial waves of the pandemic, the disruption of tikanga was prevalent, especially around tangihanga. It was during these times that iwi looked upon their kaumātua for guidance. Kaumātua and their families from all across the motu took on the responsibilities of adapting kawa and tikanga practices to adhere to the policies and restrictions brought from COVID-19. Hongi (nose pressing), kihi (kisses) and hariru (handshakes) were temporarily stopped. These greetings hold cultural significance as they are enriched in tikanga. For example, hongi and the exchange of hau hold deep spiritual connections in Māori culture, linking us to Hineahuone the first creation of humankind and the breath of life-tihei mauri ora! It is through our pūrākau that tikanga could take form and it is through tikanga that we are guided in behaviour. Thus, a disruption to these cultural greetings was ‘deeply foreign’ for many Māori. Ngā Iwi O Taranaki recognised this and developed an iwi led initiative ‘*Te Aranga O Taranaki*’, inspired by inadequate handlings of the 1918 great flu pandemic, and used this knowledge to help their uri understand that temporary tikanga adaptations were both necessary and vital for the wellbeing of the community (Tui Ora, 2022). Overall, iwi leaders guided their uri through times of uncertainty, upholding both the mana and sovereignty of their people during adapting tikanga to suit COVID-19 policy.

Tikanga Responses to Adversity

COVID-19 has shown how tikanga can evolve and adapt while still upholding aspects of tikanga. A study done by Dawes et al. (2020) interviewed (via phone or zoom) 23 Kaumātua from Ngāti Wai and 11 Kaumātua from Tainui twice weekly over a 6-week period to get an insight of their concerns and reactions towards COVID-19. Majority of Kaumātua believed that despite the disruption of normal tikanga protocol during tangihanga and times of gathering, acts of tikanga were still practiced and not as devalued as one might think. For example, Pare, an interviewed Kaumātua explained how live streaming and the use of platforms helped her connect to her people during tangihanga saying “...because in that exchange is the wairua. Even if you don’t touch, I still believe the wairua is projected”. Other aspects of tikanga were still displayed despite the restrictions and policies of the pandemic. For example, if tangihanga did happen on a marae during level 4, many sat outside the marae

due to its closures. This meant the wharekai was closed and whānau were unable to prepare food for a hākari. A hākari is an important aspect of tangihanga as it lifts the tapu off the manuhiri. Kaumātua acknowledged this and, in one case, ordered takeaways meals post tangihanga that were dispersed to whānau amongst departure (Dawes et al.2020).

Economic Impacts of COVID-19

A disruption to economic security was a direct consequence of the pandemic. The disruption to the economy meant that many people faced with unemployment or experienced a reduction in work hours thus threatening their economic stability. Furthermore, the cost-of-living crisis, heavily influenced by the war in Ukraine as well as COVID-19 itself was a contributing factor, with many families still struggling to make basic ends meet today. Housing issues, food insecurity, business and failures/liquidations were all economic impacts of the pandemic that have potential long-term effects on all aspects of wellbeing making it both a cause of concern and a need to address.

Work & Relationships

Essential workers saw a significant increase in work demand, with many working heavier and irregular shifts. This meant time away from their families which may have had an impact on relationships within their households. Furthermore, work burnout left many frontline workers so exhausted that they had no more mental or emotional energy left to give their families, which could have also strained relationships. The study conducted by Holroyd et al. (2022) interviewed Cath, a personal care assistant who worked throughout the pandemic. Cath told researchers that she felt the need to ‘protect’ her family from the virus due to the risk of exposure at work. She did this by isolating herself in a shed next door to the family home which she came home to after shift work. Other nurses throughout the study had similar experiences, with one experiencing work depression due to being displaced from her normal hospital-orientated role and out into the community. The nurse explained that losing contact with her colleagues and not having her normal institutional support was daunting and left her feeling socially isolated.

Workforce Stigma

Attached stigmas, particularly towards frontline workers, were common during the initial waves of the pandemic and have potentially negative long-term impacts on social well-being and relationships. Long-term impacts of stigmatization have the potential to create issues

around social cohesion, social anxiety, and job depression, and contribute to strained social/familial relationships. A study by Holroyd et al. (2022) conducted in-depth interviews with 22 Auckland-based community health workers to discuss their social and mental well-being during the waves of the pandemic. Based on findings from the study, healthcare workers were often stigmatized as ‘vectors of infection’ due to their line of work. The majority of all participants reported being ostracized, shunned, and avoided by the community, especially while grocery shopping. Furthermore, stigmas proved to interfere with relationships. One of the participants, Clara, a 29-year-old primary healthcare nurse, explained how the stigma she carried due to her profession influenced her relationship with her parents. Clara explained to the researchers that her parents refused to see her even after New Zealand moved to alert level 2 in June 2020 when the virus was more contained. Clara feels what she experienced was pure stigma given her parents managed to still invite extended friends and family into their bubble. Clara’s relationship issues with her parents remain unresolved, proving that stigmas brought on by the pandemic have the potential to cause long-term implications for one’s social and familial aspects of well-being.

Housing

The housing crisis is a well-known problem relating to economic deprivation in New Zealand. Housing costs take up a significant portion of one’s budget. Housing expenses can quickly become infeasible when families face adversities such as increased financial pressures, increased living costs or unexpected/ adverse events, all of which COVID-19 contributed to. The extensive literature view conducted revealed a surprising gap in research that explored housing related issues around the COVID-19 era. What was prevalent however, were the iwi led initiatives that displayed core values of tikanga such as manaakitanga, whanaungatanga, rangatiratanga and kāwanatanga in times of adversity brought on by the pandemic.

Threat to Stability

In the context of housing, stability around housing and continuity of that stability has been significantly threatened. Having a sense of ontological security, that being, having a stable life without constant change is crucial for creating and sustaining identity as well as having the ability to flourish as a person in a familiar environment. In the context of the generation in New Zealand, our identities are acquired through the everyday notions and encounters that take place in a specific environment normally, but not always, that of a domesticated

dwelling. According to Mansvelt et al. (2017), 30% of annual gross income is spent on housing. 30% of annual income is also the figure that is considered 'unaffordable' meaning housing bills would overtake other monetary concerns such as food, power, and other necessities, which is a reality for many New Zealanders. Irrespective of whether one owns or rents, the cost of living as well as the increase of economic hardships brought on from the pandemic is generating ontological insecurity, with many families facing homelessness or unstable living situations.

Homelessness

Colonisation has had significant intergenerational effects on social, cultural, and economic wellbeing for Māori, thus leading Māori to be overrepresented in homelessness statistics (Groot et al,2011). Large numbers of Māori subsequently moved to urban areas after the second world war. The consequences were adverse for Māori, with poverty and discrimination moving them into poor-quality urban accommodation, while also disconnecting them of their tribal homelands and tribal practices. One's Tūrangawaewae (sense of belonging) is based upon both whanaungatanga (connections) and ahi kā (maintained tribal relationships). Due to the fact that over 84% of Māori are urbanized, these two important factors that uphold one's Tūrangawaewae are weaker compared to historical times, thus weakening their sense of identity and belonging. The long-term implications of homelessness affect various areas of wellbeing, including but not limited to the following: high risk of experiencing sexual assault, sexual violence or physical violence as well as having unmet health care needs and a sense of insecurity. All these factors can be detrimental to both physical and mental health, making homelessness a public health concern (Groot et al. 2011).

Homelessness and Hau Kāinga

A longitudinal study on a Māori homeless woman conducted by Groot et al. (2011) found a significant relationship between cultural resilience and navigating through the difficult challenges of homelessness. In order to both understand and intervene issues regarding indigenous homelessness means it is vital to consider the relationship between colonisation and 'spiritual homelessness'. Spiritual homelessness can be brought on by being displaced from one's ancestral lands, cultural knowledge and practices and their kinship relationship. 'Home' to many Māori does not always incorporate a specific domesticated dwelling but more so an affiliation with one's hau kāinga and having a sense of belonging in that tribal

space. In fact, the concept of 'home' can normally be identified in ones pepeha or whakapapa lines, incorporating geographical features such as ones awa/moana, maunga and hapū and iwi affiliations. Pepeha and whakapapa anchor one to their own hau kāinga helping Māori to understand the concept of 'home' as well as how home provides meaning their lives. The oral recounting of one's pepeha also helps connect to other whanaunga, forming connections to both the living and the dead, thus contributing to a stronger sense of both identities, and belonging. Thus, pepeha and whakapapa represent the ways in which one's spiritual, emotional, and physical self is deeply and intimately connected to people and place, the present and past, and conducting a sense of tūrangawaewae to the beholder. This is why Māori led initiatives, programmes and research are of utmost importance to tackle issues regarding homeless Māori, as certain westernised approaches are not always applicable in the Te Ao Māori context.

Iwi led initiatives: Utilisation of Marae

Findings from our extensive literature search concluded that there was an increase of homelessness in Māori communities, which we were able to confirm by iwi led initiatives. Findings concluded that Iwi led responses have the potential to efficiently respond to Māori related affairs, such as homelessness, in an urban context. Marae specifically, were utilised as central hub points for providing resources and housing homeless families during lockdown. For example, according to Mane (2020), the Manaakitanga Project led by Dennis Hurimoana utilised Te Puea Marae located in South Auckland to accommodate over 480 families during COVID-19 lockdowns. Hurimoana speaks of the correlation between economic deprivation and homelessness due to COVID-19 saying, '*...the issue of becoming homeless now is being overtaken by becoming unemployed and now the two of them are starting to look the same.*' Hurimoana explains that communal eating and living that happens upon the marae gives whānau the opportunity to connect with each other (whakawhanaungatanga) and let Dennis and his team gain insight into their unique situations. Dennis explains that many of the whānau come in feeling scared, embarrassed, and defeated but it is through the culture of the marae that they are able to feel comfortable and let other services help to find them stable housing and employment. What's more, Te Puea Marae plans to extend its wharenuī to accommodate the needs of more homeless whānau, with Dennis recognising the marae's potential to help struggling families.

Another initiative that aimed to support homeless Māori whānau during the COVID-19 era was Marae Ora, Kainga Ora (MOKO) led by Lee-Morgan et.al (2022). MOKO is a Kaupapa

Māori Marae led research project that aims to build resilience from one's own realities. It recognises colonisation as intergenerational adversity and builds on cultural resources to restore the mana and self-determination of Māori communities. MOKO recognises that marae plays an essential role in addressing the issue of homelessness for the following reasons:

- Marae are recognised by Māori communities, and increasingly government agencies as central hub points in times of crisis
- Marae are spaces where Māori can be immersed in a cultural context and feel comfortable to receive help.
- Marae act as key sites for whānau to receive up to date and accurate information in times of crisis (such as COVID-19)
- Marae may provide important pathways to establish partnerships community and government organisations and agencies that can aid in supporting positive long-term outcomes for Māori whānau (i.e., permanent housing, employment, counselling).

The marae can bring its uri and formal organisations together for such opportunities and provides a cultural safe and supportive space for many whānau. Following Te Puea Marae's initiatives, MOKO demonstrated acts of manaakitanga towards South Auckland Māori whānau who were facing with homelessness. Five marae in South Auckland (Makaurau, Mātaatua Papatūānuku, Papakura and Manurewa) were utilised by the organisation in order to investigate whether marae could be used in an urban context to improve the wellbeing of homeless whānau. The project was already running for a number of years, however COVID-19 and the adversity it brought for many families provided the project with great insight as to how marae can be used to strengthen whānau provision of kainga. Furthermore, it allowed insight as to what strategic interventions from MOKO leaders were best suited for whānau in order for them to flourish. Each marae provided different services/resources, trying to target each aspect of wellbeing. MOKO used a number of tikanga based initiatives to connect with whānau and help them in the uncertain times the pandemic brought. These included some of the following:

- Whanaungatanga: establishing relationships with whānau, connecting, and communicating with them.
- Pūrākau: using storytelling as a means to strengthen identity as tangata whenua connecting them to history, the people and the atua,

- Manaakitanga: showing care, providing resources, accommodation and awhi during the pandemic.

A forum created by all participating marae was used for MOKO project leaders to share their experiences within each marae, a platform often used for reflection and to share commonalities and ideas. According to Lee-Morgan et al. (2021) this created a ‘...*strong solution seeking culture.*’ With marae proving to be able to cater to many aspects of wellbeing for whānau in need, the MOKO project exemplified just how versatile marae can be in times of need.

Food Insecurity

COVID 19 has significantly exacerbated issues around food security. Food insecurity can be conceptualised as not being in the possession of, or not being able to obtain, safe and nutritious foods in a socially acceptable manner (Graham et al, 2018). For many New Zealand families, lockdown intensified already pre-existing economic hardships while for others it was a whole new and disquieting situation. According to Graham et al (2018), three quarters of a million people sit below the poverty line in New Zealand. Māori and Pasifika communities were already predisposed to food insecurity prior to COVID-19, with one out of every 5 Māori and Pacifica households facing poverty. Thus, researchers estimate these communities to be hit the hardest. This section aims to address the long-term implications of food insecurity, the often-crucial roles schools play in dampening food insecurity and iwi led initiatives that aimed to target food insecurity during COVID-19 lockdowns.

Impacts of Food Insecurity

The long-term impacts of food insecurity have the potential to affect the mental, physical, and social health of an individual, which are key components of wellbeing. According to Fang et al (2021), there is a significant correlation between food insecurity and mental illness, especially that of depression. Furthermore, according to Graham et al (2018), the likelihood of developing a mental health condition due to being food insecure during the pandemic is threefold that of losing a job during the pandemic. Insomnia, suicidal ideation/behaviour, and anxiety were also consequential feelings brought on by the hardships of the pandemic contributing to psychological stress on top of food insecurity. In relation to children, prolonged food insecurity can have an influence on all aspects of wellbeing, including long term risks associated with developmental issues (both mental and physical), low immunity,

higher risk of disease (diabetes), as well as an increased risk for mental health related issues. Feelings of alienation, guilt and shame were most prevalent amongst parents suffering from food insecurity.

A study conducted by Graham et al (2018) followed 5 New Zealand households to examine the impacts of food insecurity on parental well-being. According to one participant, Anna, going grocery shopping is a difficult task for her as it brings shame and embarrassment. She explained to the researchers that she used what little money she had to prioritise her children's needs, often meaning her nutritional needs were not met. She explained that she often finds herself comparing her trolley with other shoppers. *"It's depressing seeing how much some people have in their trolley. It's hard not to look and see what others are getting."* Shopping while financially insecure for food, Anna told the researcher that the task of shopping bought her so much psychological stress that if it wasn't for the research they were conducting *"...she would have just walked out as it's so hard."* The study further revealed that Anna along with the other 4 parents involved in the study rarely bought meat or poultry and considered them a luxury. Given that New Zealand is rich in meat and poultry this is concerning, with many families like Anna's having to rely on cheap filling carbs (noodles, pasta, etc). While these types of food may satisfy hunger pangs, they are low in nutritional sources, which can have a long-term effect on both physical and mental well-being.

Food Insecurity and School Closures

Parental support networks such as family/friends outside their quarantine bubble that would usually help with food as well as the closure of schools in which a lot of parents relied upon for 60% of their children's daily nutritional intake were disrupted leaving many parents feeling isolated. A study conducted by Leach & Sebileau (2021) highlighted the pivotal role that schools play for mediating the burden of food insecurity. By conducting zoom interviews with 4 principals from decile 1 schools in high deprivation areas of Hawkes Bay, Leach & Sebileau (2021) were able to acknowledge that schools are the most consistent and closest community supports that families may be able to have assistance with food insecurity. This was evident with the majority of students from these schools receiving around half of their weekly meals at school through sponsored food programmes (Kids Can, Fonterra Milk for schools, breakfast club etc) or government initiated school lunch programmes. School closures resulted in these programmes coming to a halt, heightening already dire situations for many families (Leach & Sebileau 2021). According to one school principal in the study,

families reported breaking their bubbles to obtain food from familial/social ties as they had no means to acquire food for their children or for themselves. This was an unsafe endeavour, putting both bubbles at risk, however it goes to show how devastating food insecurity was during the initial waves of the pandemic.

Iwi led initiatives: "Feed the Pa"

As previously mentioned, one out of five Māori households were already experiencing food insecurity, meaning the onset of the pandemic would have intensified already dire situations for many whānau. Leaders of various iwi led responses recognised this, with initiatives such as 'Feed the Pa', demonstrating aspects of tikanga (manaakitanga and whanaungatanga) while also displaying acts of mana and sovereignty.' Keelan et al (2021) acknowledges that 'Feed the pa' was a localised iwi response started up by a kaumātua during the lockdown of 2020. Marae was utilised as pataka, a local hub for both the distribution and delivery of food and resources. Kaumātua used their knowledge of the community/local uri to seek out what families may be of extra assistance during lockdown, thus providing them with food packages/essentials every week. Whānau connected to the marae showed manaakitanga by donating supplies to the pataka, often from their own cupboards. What started off as a one-time delivery due to the abundance of spare food quickly evolved into an initiative that is still being practised today. Additionally, marae used their own practices of organic kai, utilising their own mara to provide fresh fruit and vegetables for whānau. An urban marae in Māngere Papatūānuku Kōkiri also provided seedlings and recipes aiming to encourage self-sufficiency through growing their own kai.

There is a lot of stigma and shame that comes with being food insecure. The disruption of support networks such as familial/social support and schools as well as changes to economic security can leave many parents isolated. Marae are entwined in familiar cultural contexts, and inhabit people who display whakawhanaungatanga and manaakitanga, thus making Māori feel more comfortable, and easier for them to receive both help and advice. It is evident through iwi led initiatives that marae are significant tools in addressing the issues COVID-19 has either bought or intensified within communities.

6. Future Areas of research

Emerging from the literature review and identified gaps in the literature are potential areas for future research of interest to our sponsor Methodist Mission Northern. These recommended

areas for future research have emerged from key themes prevalent amongst our findings, as well as gaps in the literature and are tailored to meet the Kaupapa and services provided by Methodist Mission Northern which base themselves around social justice and practical change. Future potential areas for research are outlined as follows.

Social Isolation and Loneliness

Findings suggested the exacerbation of feelings of social isolation and loneliness during the pandemic. This was highly prevalent amongst the elderly, which could have potential research propositions and or insights into the loneliness project, a programme provided by Methodist Mission Northern.

Connecting with Marae as Community Hubs

Findings emphasised the crucial role that marae have played in providing manaakitanga to those affected during the pandemic and push to utilize Marae as the main hub points for change agent programmes. Homelessness can take a toll on all aspects of wellbeing. Building a strong sense of identity, resilience and self-determination through cultural led programmes can strengthen these aspects, especially within an urban context. What's more, the utilization of marae have the potential to make Māori feel comfortable as they are surrounded by their own cultural context, making them more likely to receive help and support. Support services such as Kainga Ora, Methodist Mission Northern 'Sustaining Tenancies Programme' and other possible partnerships are all potential avenues that can be explored through engaging with whānau in a marae-based context.

Housing Insecurity

Housing issues, whether that be homelessness or difficulties sustaining stable housing, are issues we know, despite the gap in literature, are adverse realities that many New Zealanders, especially that of Māori, struggle with, and that COVID-19 and its economic implications would have exacerbated. The gap in housing literature during the pandemic era is most likely due to the timeframe in which we have conducted this report, with research around this issue likely to be still ongoing. There is an evident need to revisit this area of interest as research findings become available to gain a better insight as to prevalent housing issues, and potential strategies to mitigate against housing insecurity and homelessness.

7. Conclusion

Overall, the extensive literature review provided a wide range of insights into the ways in which the COVID-19 pandemic affected the social, cultural, mental, and physical aspects of wellbeing. While the long-term impacts of some components of wellbeing (such as physical) are still being investigated, there is enough present evidence to suggest that COVID-19 has significantly exacerbated already pressing issues within our communities. The literature review report emphasises the interconnectedness between all aspects of health and wellbeing and provides some understanding of the current, and ongoing implications of the COVID-19 pandemic. Importantly, the literature review also acknowledges the positive and supportive efforts of iwi led initiatives, that were community led and holistically focused.

References

- Asthma + Respiratory Foundation NZ. (2022). COVID-19. <https://www.asthmafoundation.org.nz/your-health/covid-19>
- Babore, A., Trumello, C., Lombardi, L. *et al.* (2021). Mothers' and Children's Mental Health During the COVID-19 Pandemic Lockdown: The Mediating Role of Parenting Stress. *Child Psychiatry Human Development* (2021). <https://doi.org/10.1007/s10578-021-01230-6>
- Billi, L., Encarnacion, T., Ismail, G., Seck, P., & Tabaco, R.J. (2021). Women and girls left behind: Glaring gaps in pandemic responses. *UN Women Report*. <https://data.unwomen.org/publications/women-and-girls-left-behind-glaring-gaps-pandemic-responses>
- Centres for Disease Control and Prevention. (2021). Loneliness and social isolation linked to serious health conditions. <https://www.cdc.gov/aging/publications/features/lonely-older-adults.html>
- Dawes, T., Muru-Lanning, M., Lapsley, H., Hopa, N., Dixon, N., Moore, C., Tukiri, C., Jones, N., Muru-Lanning, C., & Oh, M. (2020). Hongi, Hariru and Hau: Kaumatua in the time of COVID-19. *Journal of the Royal Society of New Zealand*. 51(1) pp:23-36. <https://doi.org/10.1080/03036758.2020.1853182>
- Dobson, R. (2022). Social isolation. *Health Navigator New Zealand*. <https://www.healthnavigator.org.nz/health-a-z/s/social-isolation/#:~:text=Being%20socially%20isolated%20for%20a,and%20concentrating%2C%20and%20premature%20death>
- Donnelly, S., McDonald, F., & Goodyer, C. (2022). Whānau experiences of patient's deaths in Wellington Hospital during 2020 COVID-19 pandemic levels 3 & 4. *The New Zealand Medical Journal*, 135(1552) pp:16-26. <https://journal.nzma.org.nz/journal-articles/whanau-experience-of-patients-deaths-in-wellington-hospital-during-2020-covid-19-pandemic-levels-3-4-open-access>
- Fang, D., Thomsen, M.R. & Nayga, R.M. (2021). The association between food insecurity and mental health during the COVID-19 pandemic. *BMC Public Health* 21, (607)<https://doi.org/10.1186/s12889-021-10631-0>
- Gallatsatos, Panagis. (2022). COVID-19 lung damage. *Johns Hopkins Medicine*.<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/what-coronavirus-does-to-the-lungs>
- Graham, R., Hodgetts, D., Stolte, O., & Chamberlain, K. (2018). Hiding in plain sight: experiences of food insecurity and rationing in New Zealand, *Food, Culture & Society*,21(3). pp. 384-401. <https://doi.org/10.1080/15528014.2018.1451043>
- Groot, S., Hodgetts, D., Nikora, L.W, & Leggat-Cook, C. (2011). A Māori homeless woman. *Ethnography*, 12(3), 375–397. <https://doi.org/10.1177/1466138110393794>

Haar, J., & O’Kane, C. (2022). A post-lockdown study of burnout risk amongst New Zealand essential workers. *Social Science & Medicine*, 306. <https://doi.org/10.1016/j.socscimed.2022.115157>

Hall, L., Sanchez, K., Da Graca, B., Bennett, M., Powers, M., & Warren, A. (2022). Income differences and COVID-19: Impact on Daily Life and Mental Health. *Population Health Management* 25(3) (pp:384-391)<https://www.liebertpub.com/doi/full/10.1089/pop.2021.0214>

Hewett, W. (2022). Cancer patient slams public health care system after 10 months wait for diagnosis. *News Hub*. <https://www.newshub.co.nz/home/new-zealand/2022/03/cancer-patient-slams-public-health-care-system-after-10-month-wait-for-diagnoses.html>

Hokamau, C.A., Dell, K., Newth, J., Mika, J.P., Sibley, C.G., Keelan, T., & Dunn, T. (2021). The wellbeing of Māori pre and post COVID-19 lockdown in Aotearoa/New Zealand. <https://www.psych.auckland.ac.nz/en/about/maori-identity-financial-attitudes-study.html>

Holroyd, E., Long, N. J., Appleton, N. S., Davies, S. G., Deckert, A., Fehoko, E., Laws, M., Martin-Anatias, N., Simpson, N., Sterling, R., Trnka, S., & Tunufa’i, L. (2022). Community healthcare workers' experiences during and after COVID-19 lockdown: A qualitative study from Aotearoa New Zealand. *Health & Social Care in the Community*, 30, e2761– e2771. <https://doi.org/10.1111/hsc.13720>

Jennings, G. (2021). How COVID affects the heart, according to a cardiologist. *HRI (Heart Research Institute)*. <https://www.hri.org.au/health/your-health/lifestyle/how-covid-affects-the-heart-according-to-a-cardiologist>

Kahawage, P., Bullock, B., Meyer, D, et al.(2022). Social Rhythm Disruption is Associated with Greater Depressive Symptoms in People with Mood Disorders: Findings from a Multinational Online Survey During COVID-19. *The Canadian Journal of Psychiatry*. 67(11):832-841. doi:[10.1177/07067437221097905](https://doi.org/10.1177/07067437221097905)

Keelan, T.J., Te Awekōtuku, N., Nikora, L.W., Edge, K., &McRae, K.O. (2021). The voices of Kaumatua during the COVID-19 pandemic. *MAI Journal* 10(2), 116-124.<https://www.journal.mai.ac.nz/sites/default/files/Keelan.pdf>

Law Insider. (n.d).<https://www.lawinsider.com/dictionary/socio-economic-disadvantage>

Leach, D.T., & Sebileau, P.M. (2021). The impact of the COVID-19 level 4 lock down on food security among whānau of decile 1 schools. *MAI Journal*,10(1),30-33.

Cassim, S., & Keelan, T. J. (2022). A review of localised Māori community responses to COVID-19 lockdowns in Aotearoa New Zealand. *AlterNative: An International Journal of Indigenous Peoples*, 0(0). <https://doi.org/10.1177/11771801221124428>

Lee-Morgan, J., Penetito, K., Mane, J., and Eruera, N. (2022). Marae Ora, Kāinga Ora: A Marae-Led Response to COVID-19. In E. Papoutsaki and M. Shannon (Eds.), *Proceedings: 2021 ITP Research Symposium*, 25 and 26 November (pp. 169–182). Auckland: ePress, Unitec, Te Pūkenga. <https://doi.org/10.34074/proc.2205013>

- Mane, A. (2020). Te Puea Marae sees the changing face of homeless. *Te Ao Māori News*. <https://www.teaomaori.news/te-puea-marae-sees-changing-face-homeless>
- Mansvelt, J., Cain, T., & Dupuis, A. (2017). Physical places: Home as place. In Cain, T., Kahu, E., & Shaw, R. (Eds.), *Tūrangawaewae Identity & Belonging Aotearoa New Zealand*. Massey University Press.
- Martin, H. (2021). More than 100,000 procedures and specialist appointments cancelled due to delta. <https://www.stuff.co.nz/national/health/coronavirus/300451705/more-than-100000-procedures-and-specialist-appointments-cancelled-due-to-delta>
- McRae, K. O. (2010). Tangi and state funeral: Te Arikini Dame Te Atairangikaahu and Prime Minister Norman Kirk (Master of Social Science Thesis). University of Waikato, Hamilton, New Zealand.
- Mental Health Foundation of New Zealand. (2023). Te Whare Tapa Wha. <https://mentalhealth.org.nz/te-whare-tapa-wha>
- Morrison, S.(producer). (2021, September 9). *Te Karere* [TV broadcast]. Whānau farewell loved one at Auckland border amid alert level 4 tangi restrictions. <https://www.youtube.com/watch?v=Ni7RR0tpgFI>
- Murphy. (2020).Concerns for LGBTIQI People in Unsafe Homes During COVID-19 Lockdown.<https://www.rnz.co.nz/news/national/413386/concerns-for-lgbtqi-people-in-unsafe-homes-during-covid-19-lockdown>
- Nikora, L. W., Te Awekōtuku, N., & Tamanui, V. (2013, 30 June - 3 July 2013). Home and the spirit in the Māori world. Paper presented at the He Manawa Indigenous Research Conference, Hamilton, New Zealand.
- Officer, T., Imlach, F., McKinlay, E., Kennedy, T., Pledger, M., Russell, L., Churchward, M., Cumming, J., & McBride-Henry, K. (2022). COVID-19 Pandemic Lockdown and Wellbeing: Experiences from Aotearoa New Zealand in 2020. *International Journal of Environmental Research and Public Health* 19(4). doi: [10.3390/ijerph19042269](https://doi.org/10.3390/ijerph19042269)
- Prasad, I.(producer). (2021, September 9th). *Te Karere*. [TV broadcast]. Youtube. <https://www.youtube.com/watch?v=Ni7RR0tpgFI>
- Rangiwai, B., & Sciascia, A. (2021). The impacts of COVID-19 on tangihanga.<https://www.researchbank.ac.nz/bitstream/handle/10652/5359/Tangiwai%2C%20B.%20%282021%29.pdf?sequence=3&isAllowed=y>
- Raveendran, A.V., Jayadevan, R., & Sashidharn, S. (2021). Long COVID: An overview. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*,15(3), 869-875. <https://doi.org/10.1016/j.dsx.2021.04.007>

Rengasamy, E.R., Long, S.A., Rees S.C., Davies, S., Hildebrandt, T., & Payne, E. (2021). Impact of COVID-19 lockdown: domestic and child abuse in Bridgend. *Child Abuse Neglect*.105386. doi: 10.1016/j.chiabu.2021.105386

Rodda, S., Park, J., Wilkinson-Meyers, J., & King, D. (2022). The impact of COVID-19 on addiction treatment in New Zealand. *Addictive Behaviours* 127 (pp:1-6) doi: [10.3390/ijerph19042269](https://doi.org/10.3390/ijerph19042269)

Rua, M., Hodgetts, D., Groot, S., Blake, D., Karapu, R., & Neha, E. (2023). A Kaupapa Māori conceptualization and efforts to address the needs of the growing precariat in Aotearoa New Zealand: A situated focus on Māori. *British Journal of Social Psychology*, 62(Suppl. 1), 39– 55. <https://doi.org/10.1111/bjso.12598>

Science Media Centre. (2022). A big week for Long COVID research-in the news. <https://www.sciencemediacentre.co.nz/2022/05/27/a-big-week-for-long-covid-research-in-the-news/>

Sharma, M., & Aggarwal, S. (2020). Homeless persons with mental illness during COVID-19. *Asian Journal of Psychiatry*, 53. <https://doi.org/10.1016/j.ajp.2020.102408>

Social Wellbeing Agency. (2020). Short Report: social isolation, loneliness, and COVID-19. *The New Zealand Government*. <https://swa.govt.nz/assets/Publications/reports/Short-Report-V3.pdf>

Tui Ora. (2022). Lessons from history’s long shadow. <https://www.tuiora.co.nz/stories-events/how-taranaki-iwi/>

University of Otago. (2022). Study shows link between COVID-19 and worsening mental health. <https://www.otago.ac.nz/news/news/otago841307.html>

World Health Organization. (2022). Mental health and COVID-19: early evidence of the pandemic’s impact: scientific brief, 2 March 2022. World Health Organization <https://apps.who.int/iris/bitstream/handle/10665/352189/WHO-2019-nCoV-Sci-Brief-Mental-health-2022.1-eng.pdf?sequence=1&isAllowed=y>

World Health Organization. (2021). Coronavirus disease (COVID-19): Post COVID-19 condition. [https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-\(covid-19\)-post-covid-19-condition?gclid=Cj0KCQiA3eGfBhCeARIsACpJNU-YvZiCzJMChPNxF1ITFV1LyhAtVa4DAQ_J_2IQ0D3zHJd_txSUiFAaAggrEALw_wcB](https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-(covid-19)-post-covid-19-condition?gclid=Cj0KCQiA3eGfBhCeARIsACpJNU-YvZiCzJMChPNxF1ITFV1LyhAtVa4DAQ_J_2IQ0D3zHJd_txSUiFAaAggrEALw_wcB)

Wylie, H. (2020). Children at increased risk of harm online during global COVID-19 pandemic. *UNICEF*. <https://www.unicef.org/press-releases/children-increased-risk-harm-online-during-global-covi>