
Updated psychosocial support: Evidence base in the COVID-19 context

**Disaster Research Science Report 2021/01
June 2021**

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Mooney, M. F., MacDonald, C., Becker, J., Blake, D., Gibbs, L., Naswall, K., Malinen, S., Alefaio, S., Tassell-Matamua, S., Johnston, D. (2021). Updated psychosocial support: Evidence base in the COVID-19 context. Wellington (NZ): Massey University. Disaster Research Science Report; 2021/01. 54 pp.

ISSN: 2703-383X

This report may be downloaded from: <https://mro.massey.ac.nz/>

ACKNOWLEDGEMENTS

The authors would like to acknowledge MBIE, Resilience to Nature's Challenge National Science Challenge, and the MBIE COVID-19 Innovation Acceleration Fund which supported this research.

ABSTRACT

This report summarises the emerging evidence base for psychosocial impacts and psychosocial support interventions in the COVID-19 pandemic in the following areas:

The psychosocial and mental health impacts of the COVID-19 pandemic to date

The evidence base for the effectiveness of psychosocial support services in the response and recovery to COVID-19 in supporting individual and community adaptation and well-being

A brief overview of psychosocial interventions related to COVID-19 pertinent to the Aotearoa New Zealand context.

Emerging impacts from the ongoing COVID-19 pandemic include impacts to physical and mental health, exacerbation of disparities, secondary impacts from public health measures (e.g. social distancing), and negative economic consequences. Several groups appear to be more at risk.

Evidence suggests that ensuing psychosocial needs are immediate and are likely to continue long term. Psychosocial recovery plans and interventions need, as much as possible, to be evidence informed, flexible enough to stay relevant to the evolving context, address disparities, and adapt to and reflect different cultural and community contexts.

GLOSSARY AND ACRONYMS

Aotearoa	Māori name for New Zealand
BAME	Black, Asian, Minority Ethnic
BAU	Business as usual
BIPOC	Black, Indigenous, People of Colour
CDC	Centers for Disease Control and Prevention
HAO	He Ara Oranga: Report of the Government Inquiry into Mental Health and Addiction 2018
IASC	Inter-Agency Standing Committee
IFR	Infection Fatality Rate
IFRC	International Federation of Red Cross and Red Crescent Societies
Kaupapa Māori	A Māori approach to topic, customary practice, institution, agenda, principles, or ideology – a philosophical doctrine, incorporating the knowledge, skills, attitudes, and values of Māori society
LGBTQIA+	Lesbian, Gay, Bisexual, Transexual, Queer, Intersex, Asexual
Māori	Indigenous people of Aotearoa New Zealand
MHPSS	Mental Health Psychosocial Support
MIQ	Managed Isolation Quarantine
NCDs	Non-Communicable Diseases
NPIs	Non-Pharmaceutical Interventions
Pacific peoples	Includes people from Sāmoa, Tonga, the Cook Islands, Niue, Tokelau, Tuvalu, and other smaller Pacific nations
Pasifika	Term used to describe Pacific Island migrants to Aotearoa New Zealand from Sāmoa, Tonga, the Cook Islands, Niue, Tokelau, Tuvalu, and other smaller Pacific nations
Pākehā	Aotearoa New Zealander of European descent
PIM	Public Information Management
PS	Psychosocial
PSS	Psychosocial Support
SES	Socio-Economic Status
Tangihanga	Traditional Māori funeral process
Te ao Māori	Māori worldview
Te Tiriti o Waitangi	The Treaty of Waitangi
Tikanga	Correct procedures according to Māori customs
Whānau	A term used in reference to family, whether they be immediate (i.e., nuclear), extended, or non-related but have come together for a specific purpose
WHO	World Health Organization

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INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared a pandemic due to the rapid, global spread of a novel coronavirus - SARS-CoV-2, known as COVID-19 (WHO, 2020a). Less than ten months later, in December 2020, there were 61,869,330 confirmed cases and 1,448,896 deaths in more than 200 countries¹. Despite the possibility of vaccination in many countries², the pandemic continues to peak in multiple areas globally. By May 2021 there were over 157 million confirmed cases, over 3 million deaths, and three variants of concern (CDC; WHO statistics).

In response to the ongoing pandemic, governments and public health authorities around the world implemented a range of non-pharmaceutical interventions (NPIs) including border restrictions, social distancing and sanitary measures such as coughing and sneezing etiquette, hand hygiene, and wearing face masks (Ferguson et al., 2020; Flaxman et al., 2020). Aotearoa New Zealand (NZ) similarly instigated measures to protect the health of its citizens and manage the emerging crisis.

For the first time in history, on March 19, 2020 Aotearoa New Zealand closed its borders to all but Aotearoa New Zealand citizens and permanent residents. Six days later a State of National Emergency was declared and the country moved into Level 4-lockdown of a 4-tier alert system (see <https://covid19.govt.nz/alert-system/alert-system-overview/>). Level 4-lockdown meant that all but essential services were ordered to close for at least four weeks and social distancing was enforced with a nationwide stay-at-home mandate. These measures flattened the curve of the outbreak with no community cases identified for 100 days.

The country functioned at Level 1 until cases of community transmission in early August 2020 and February 2021 resulted in the Auckland Region returning temporarily to Level 3 and the rest of the country to Level 2. As of May 11, 2021, the country is at Level 1 with 2,618 confirmed COVID-19 cases (27 active and no current community transmission cases)³. As the pandemic continues to evolve, fluctuate, and diminish, the full impact of COVID-19 on the Aotearoa New Zealand population is currently unknown.

Aotearoa New Zealand has several policy and reference documents focused on crisis planning, response, and recovery pertinent to psychosocial well-being, most notably the Ministry of Health Framework for Psychosocial Support in Emergencies 2016 and the Kia Kaha, Kia Māia, Kia Ora Aotearoa: COVID-19 Psychosocial and Mental Well-being Recovery Plan (Ministry of Health, 2020a).

The present document updates the evidence base for psychosocial impact and recovery in the COVID-19 context and can be used to support decision making and guide recovery-supportive activities. The work was undertaken as part of a Ministry of Business, Innovation and Employment (MBIE) COVID-19 Innovation Acceleration Fund project to address the psychosocial needs of the Aotearoa New Zealand population in response to the COVID-19 pandemic. A related document, also part of the MBIE project,

¹ WHO data. Weekly dashboard: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

² New Zealand started to vaccinate frontline border workers in February 2021 (Ministry of Health website).

³ Ministry of Health website 15 April, 2021.

presents an updated framework for community recovery in the COVID-19 context (MacDonald, et al., 2020).

METHODOLOGY

A rapid evidence assessment of the academic literature was undertaken focusing on the following questions:

1. What are the documented global psychosocial health impacts of the COVID-19 pandemic to date?
2. What is the evidence base for the effectiveness of psychosocial support services in the response and recovery to COVID-19 in supporting individual and community adaptation and well-being?
3. Briefly, how are psychosocial interventions applied in the COVID-19 context?

A comprehensive search strategy was used to identify appropriate documents from both the published peer review articles and grey literature. Documents were sourced through Massey University Electronic Library resources using a range of web-based databases including Scopus, PubMed, PILOTS, PsychLit, and Science Direct. A manual search of the reference lists of selected papers was also used to identify studies missed by the systematic search. Aotearoa New Zealand and international stakeholders were also asked to identify relevant unpublished literature.

The resultant document was developed using an iterative drafting and refinement process with input from a project advisory group.

1. PSYCHOSOCIAL AND MENTAL HEALTH IMPACTS

Characteristics of the COVID-19 pandemic

Characteristics of the pandemic in summary:

- multiple, ongoing, inter-connected cumulative impacts that compound existing hardships and challenges
- global nature of the pandemic which affects the whole of a society
- difficult to predict the duration of the pandemic crisis, and thus the timeline for recovery
- a considerable prevalence of distress
- Mental Health Psychosocial Support (MHPSS) services globally and nationally under strain or disrupted (He Ara Oranga, 2018; WHO, 2020b).

Multiple, complex impacts

The COVID-19 pandemic context is complex with multiple, ongoing inter-connected cumulative impacts and challenges related to the health threat, including the appearance of new virus variants, family and social disruption, financial insecurity, caregiving burden, and confinement-related stress (Fernandez 2020; Fontanet et al., 2021; Hagger et al., 2020; Javakhishvili et al., 2020). The long-term effects are yet unknown (Prime et al., 2020) but as the impact and magnitude of COVID-19 unfolds, it is likely that there will be increasing levels of disillusionment, distress, and division (Poulton et al., 2020) as individuals and groups experience ongoing challenges (Morgan et al., 2015)⁴ and weariness in the face of the continuing crisis. Where the stress response is prolonged, internal capacities are overused and there is wear and tear on a person's health (Piccardi et al., 2017) with a continuing impact on well-being and quality of life (Lorenzoni et al., 2020).

The social, economic, and mental health consequences of COVID-19 have been compared to that of ecological disasters, political coups, revolutions, and terrorist attacks in that the pandemic is an acute crisis as well as a crisis which compounds negative consequences in families experiencing risk such as economic hardship, racism, or adversity (Fraenkel & Cho, 2020).

Furthermore, the physical/social distancing measures and travel restrictions implemented in most countries are highly likely to reduce or disrupt individuals' and communities' social networks which are vital to supporting recovery from a crisis and may result in immediate and long-term psychosocial impacts (Aldrich, 2016; American Psychological Association, 2020; Masten et al., 2015).

⁴ Social divisions are being signaled in some countries; for example, more than 100,000 Californians have bought guns since the COVID-19 pandemic with consequent worries about suicide and violence (The Guardian 20/10/20).

Global crisis

While the psychosocial impact of the COVID-19 pandemic is similar to other major crises (Pfefferbaum & North, 2020), there are also differences to be considered when designing response and recovery for both individuals and communities. This is not a localised disaster; COVID-19 has a global impact affecting the whole of society (Osofsky et al., 2020). As all regions are affected, outside help is not feasible⁵. Thus, Aotearoa New Zealand is part of a global context where cascading effects in other countries (e.g., increases in cases, new variants, vaccination availability, economic downturns) are impacting the Aotearoa New Zealand population.

Uncertain duration

Compared to other crises, it is more difficult to predict the duration of a pandemic and thus the timeline for recovery (Fontanet et al., 2021; Osofsky et al., 2020). The uncertainty about when the pandemic may end or be sufficiently contained can result in increased stress and anxiety (Shanafelt et al., 2020).

The length of a crisis and associated stresses may also increase interpersonal tension and divisions in communities, including judgement of people who flout COVID-19 restrictions and stigmatisation of certain groups such as those associated with cluster outbreaks (Poulton et al., 2020; Sotgiu & Dobler, 2020) and vaccination adherence. Groups reporting COVID-19 stigma and discrimination include frontline health workers, patients and survivors of the disease, social minorities, and those who are marginalised (e.g. Asmundson & Taylor, 2020; Kim et al., 2020; Misra et al., 2020; Sotgiu & Dobler, 2020), including in Aotearoa New Zealand (e.g., Neilson, 2020). As COVID-19 is expected to be a 'long wave' crisis, with peaks and diminishing threat cycles (Wordsworth et al., 2020), despite the possibility of vaccinations, ongoing disruption and tensions for individuals, families, and communities are likely to persist throughout 2021.

Considerable ongoing distress

The COVID-19 pandemic is causing elevated distress, but impacts vary; "Pandemics are a complex crisis in the sense that both direct and indirect impacts can be high or low and the impact ratio can vary from region to region depending on the degree of hazard exposure, existing vulnerabilities and how well a community or country is able to suppress disease transmission" (Wordsworth et al., 2020, p. 5). COVID-19 is increasingly being experienced not as a single pandemic, but multiple parallel pandemics with certain groups facing numerous severe challenges and others experiencing fewer or minimal difficulties (Williamson et al., 2020).

Research with diverse global populations experiencing the pandemic indicate high levels of distress (Asmundson & Taylor, 2020; WHO, 2020a). Elevated levels of psychological

⁵ The sharing of vaccination doses may be an emerging global effort at collaboration and to increase herd immunity.

distress⁶ are related to the threat of contracting the illness but may also be due to people's natural alarm system of 'flight, fight, or freeze' activating in the face of the COVID-19 threat — a response initially adaptive in the immediate threat phase, but a cause of mental distress when persistent over time (Allison et al., 2018 in He Ara Oranga). Social distancing, school closures, self-isolation, and quarantine in many countries have lasted longer than anything previously experienced (O'Connor et al., 2020) and may be prolonging the perceived threat and threat response as well as compounding the secondary negative effects emerging of economic downturns and prolonged isolation from social networks (IMF, October, 2020; Verger et al., 2021).

Although the pandemic is largely contained in Aotearoa New Zealand, many people will experience ongoing heightened stress (Poulton et al., 2020) due to the COVID-19 context of risk, uncertainty, and economic challenge (Settersten et al., 2020; Wordsworth et al., 2020). Risk, stress, and stigma related to Managed Isolation and Quarantine (MIQ) facilities have secondary impacts on the population, as do community cluster outbreaks and self-enforced isolation (Brooks et al., 2020). Tensions, arising from group disagreements about opening borders or accepting vaccination, may undermine community adherence and community cohesion (Dror et al., 2020; French et al., 2020). Addressing the medium and long-term psychosocial consequences of the pandemic will therefore be key challenges, not just for our healthcare system but across related sectors such as finance, employment, social welfare, and education.

Mental Health and Psychosocial services strained or disrupted

A rapid survey of 130 countries during June-August 2020 revealed that mental health, neurological, and substance use services appeared to be disrupted or under strain (WHO, 2020b). The survey highlighted that, worldwide, MHPSS services, already limited in availability, were disrupted at a time they are needed most to respond to the adverse mental health impacts of COVID-19. Aotearoa New Zealand also may have entered the pandemic with this sector under strain and so lacks the capacity for the necessary surge capacity (Every-Palmer et al., 2020; He Ara Oranga, 2018).

Detailed impacts of COVID-19

Physical and mental health impacts

The pandemic is creating substantial physical health impacts from both direct health complications from COVID-19 and the disruption to delivery of standard or elective care for individuals with a range of acute and chronic health issues (O'Neil et al., 2020). People with vulnerabilities, including older adults and those with multiple comorbidities, children and youth appear to be disproportionately impacted by COVID-19 (Clark et al., 2020). In

⁶ Psychological distress is a state of emotional suffering associated with stressors and demands that are difficult to cope with in daily life. Disaster contexts contain stressors that can result in psychological and mental distress (Beaglehole et al., 2018).

the United States, for example, the majority of COVID-19 related deaths occur in adults over 65 years of age and around 25% have occurred in nursing homes (CDC, 2020; Yu & Hung, 2020). Additionally, convalescence for individuals seriously affected by COVID-19⁷ may be long, stressful, and costly (Rigny et al., 2019; Simpson & Robinson, 2020).

As expected from other crises, mental health and well-being impacts are emerging (Hacimusalar et al., 2020). While only a minority of the population will experience acute mental distress (Soklaridis et al., 2020), COVID-19 related stressors are associated with a variety of mental health issues including Post-Traumatic Stress Disorder (PTSD), anxiety, depression, and somatic complaints (Pfefferbaum & North, 2020). Notably, frontline health workers are under threat not only from contagion but from stress related mental health issues (e.g., de Pablo et al., 2020; Kisely et al., 2020) and younger adults appear to be more susceptible to mental distress (Every-Palmer et al., 2020; Solomou et al., 2020).

The possibility of increased rates of suicide (Horney et al., 2020) due to the accumulation of stressors from the pandemic has also been highlighted (Nelson & Adams, 2020; Reger et al., 2020). Although the overall Aotearoa New Zealand suicide rate fell slightly in the last year (13.93% to 13.01%), there is a need to be vigilant in the pandemic context, especially in groups where rates have increased, such as older adult males and Māori youth (Barak et al., 2020).⁸

Impact of public health measures

Evidence suggests that the widespread application of physical distancing / social isolation measures⁹ in many countries raises the potential for significant physical health, mental health, and psychosocial consequences and can negatively impact people's health and well-being (Bu et al., 2020; Choi et al., 2020; Liu et al., 2020; Long, 2020). Experience in MIQ contexts can increase mental distress (Reagu et al., 2021) and challenges in MIQ contexts can influence effectiveness of care and contagion (Al-Busaidi & Martin, 2020). Negative impacts of isolation or MIQ measures are more likely if demands of the situation outweigh the available resources (Verger et al., 2021) and can depend on the circumstances in which people are required to enter MIQ facilities (e.g., rapid quarantine following cluster outbreaks, distance from family members, and loss of wages).

Physical or social distancing measures can result in loneliness, feelings of isolation, and vulnerability, which in turn negatively affect a person's social, emotional, and physical health (Dean et al., 2020; GO8 Covid-19 Roadmap to Recovery, 2020; Holt-Lundstad et al., 2015) and contribute to increased anxiety, depression, suicidal ideation, and PTSD (Banerjee et al., 2020; Every-Palmer et al., 2020; Okruszek et al., 2020). For example, young adults 'sheltering-in-place' during COVID-19 reported increased loneliness, sleep

⁷ Especially people who experience ongoing symptoms, colloquially termed "long COVID".

⁸ Rates of suicide in Māori youth remain one of the highest rates in the OECD World.

⁹ These measures can vary from *voluntary social distancing* (those with symptoms to self-isolate) through *lockdown* (everyone to stay at home and not to interact with anyone outside of their immediate household members) or *imposed quarantine* (strict restriction on movement in designated facilities) to what Long (2020) calls *loosened lockdown* (some inter-household interaction with 2 metre distancing and outdoors).

disturbance, and anxiety (Jelaca et al., 2020). Other stressors related to being in quarantine include infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma (Brooks et al., 2020).

Those working during lockdown or working from home while also taking care of children may be under additional strain, such as women working from home while also home schooling and attending to domestic tasks.¹⁰ During lockdown, caregivers of people with disabilities or illnesses (such as dementia, terminal NCDs) are living with added stress (threat of illness, isolation, and disruption of usual support resources) (Brown et al., 2020).

Lockdown with confined living arrangements, especially if coupled with financial hardship, may lead to relationship discord, increased substance use, and decreased psychosocial health and well-being (Long, 2020; Mallet et al., 2020; Marmot & Bell, 2019; Molyneux et al., 2020; Sun et al., 2020). Women and children (and sometimes men) are forced to spend increased time in close quarters with potentially abusive family members (Campbell, 2020; UN Women, 2020). Domestic violence is known to increase in crises (Anastario et al., 2009; Sety, 2012); lockdowns close schools, workplaces, and refuges, all of which can be havens for victims.

Social distancing can increase isolation, a well-documented risk factor for psychological distress and related mental illnesses (Bennett et al., 2018). Being in lockdown or quarantine can also exacerbate conditions for people suffering from mental health issues, with the additional impact of limited access to services in this context (Newby et al., 2020). However, some research also suggests that for a percentage of a population, lockdown, if temporary and not prolonged, was a positive experience (Every-Palmer et al., 2020).

Similarly, during periods of restricted movement access to usual health care is impacted and people may delay seeking medical care generally. Aotearoa New Zealand reported a suspension of elective and non-urgent care in Levels 3 and 4¹¹ and multiple countries reported delayed presentation of, for example, acute ischemic strokes in the United States (Schirmer et al., 2020) or diagnosis and treatment of dementias (Brown et al., 2020).

While being in lockdown brings many issues individually and interpersonally, changes in lockdown levels can also be mentally challenging. Re-engaging with the world after lockdown situations may be stressful for some, including those who have increased negative behaviours (such as addictions) while in lockdown, or those who have social anxiety stress which is retriggered when exiting lockdown. There is additional stress involved when re-entering a tighter social distancing level or lockdown situation, where the constraints and tensions that may be associated are already known. Further, additional stress has been linked to a spike in cases, a new wave of infection, or fear of economic consequences as seen in Melbourne (July 2020) and Auckland (August 2020 and February 2021).

¹⁰ For example: <https://www.abc.net.au/news/2020-11-17/stressed-out-women-burnt-out-covid-19-coronavirus-pandemic/12847154>

¹¹ For example, in response to the Auckland August outbreak, Waitemata, Auckland, and Counties Manukau district health boards activated their COVID-19 resurgence plans, postponed outpatient appointments and elective surgeries, and moved to virtual appointments for all departments (17 August 2020).

As more research comes to hand, the above impacts of such measures and consequent evolving MHPSS needs will become clearer. Potentially, 'at-risk' communities will need to be more readily identified, along with the services that are required and how these services should be targeted and delivered.

Economic impacts

The International Monetary Fund (IMF), as of April 14, 2020, predicted that the global economy would decline by 3% in 2020. In June, the IMF stated¹² that the pandemic has had a more negative impact on activity in the first half of 2020 than anticipated and the recovery is projected to be more gradual than previously forecast, particularly impacting low-income households. The impact of financial instability and uncertainty has been reported as an important determinant of mental health and well-being during the COVID-19 pandemic (Marmot, 2020; Solomou & Constantinidou, 2020).

It has long been understood that unemployment and socio-economic hardship affect well-being and mental health (e.g., Espinosa & Rudenstine, 2020; Marmot & Bell, 2019) and increase risk of physical ill health (Jiang et al., 2020; Marmot et al., 2020). Financial hardship, often inter-related with other factors (e.g., membership of a marginalised group or limited access to education), is associated with increased distress and reduced well-being following a disaster or crisis (Blundell et al., 2020; Morgan et al., 2015).

Low income urban communities are reported to have higher prevalence of physical and psychological distress (Baumer et al., 2020; Espinosa & Rudenstine, 2019). Individuals with low Socio-Economic Status (SES) have reported lower levels of perceived social support and increased levels of perceived stress in crises (Jiang et al., 2020). Further, certain groups may experience higher economic impact. For example, in August 2020, Radio NZ news reported that women constituted 90% of the job losses in Aotearoa New Zealand over the previous three months. Those in more precarious employment may experience more economic hardship and consequent reduction in well-being: data from Canada shows that recent immigrants, low-income families, and families with children are being disproportionately impacted by income loss during the pandemic (Vanier Institute of the Family, 2020).

Different impacts for specific groups

In this section, when potentially 'vulnerable' or 'at-risk' groups are referred to, it is important to note that language counts. Using the term 'individual or group at-risk or high-risk' places the group or person first. When people are labelled vulnerable, it is a deficit-oriented frame through which they are being viewed, with negative connotations such as weakness, passivity, or infirmity (O'Sullivan & Phillips, 2019). 'Vulnerability' may come largely from the constructions in the society and inequities in systems, not from intrinsic characteristics of members of a group (Katz et al., 2019)¹³. It is also acknowledged that groups are not

¹² <https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020>

¹³ An example of this could be the barriers people with disabilities face when physically trying to access services.

homogenous; they are diverse, reflecting a considerable variation in capacity and risk. It is thus important to acknowledge the diversity within each group. Equally, groups portrayed as homogenous (e.g., women, Indigenous peoples) have important differences in social determinants such as SES and access to resources, as well as interactions between determinants that influence risk (Kapilashrami & Hankivsky, 2018; Pedros-Barnils et al., 2020).

With many 'at-risk' groups, there is a compounding of several factors that exacerbate the pandemic effect. There is interconnectedness (and intersectionality¹⁴) for some multiple 'at-risk' elements. For example: older adults and Pasifika persons who already may have socio-economic difficulties, underlying physical conditions, and less access to care.

Nevertheless, it is clear that COVID-19 does not affect people equally and that, given existing disparities in the community, some groups in Aotearoa New Zealand are more likely than others to be impacted negatively by the pandemic. The pandemic and impact of public health measures are likely to hit hardest those already most vulnerable through material and social disadvantage (Marmot et al., 2020; Ulubaşoğlu et al., 2019). Groups at risk have a mix of needs but also strengths (Quinn et al., 2020). Māori responses to lockdown demonstrated numerous resources and capacities, despite perceived and actual underlying health vulnerabilities (McMeeking & Savage, 2020). Bearing in mind the effects of intersectionality, taking a strengths-based approach with individuals and groups can enable rather than label.

It is important to be aware that as the pandemic evolves, groups at risk may change. Individuals and groups affected by an event may experience any number of trajectories, from negative to positive and from increased distress and reduced capacity to function to increased resilience and positive adaptation (Harms et al., 2018; Weems & Graham, 2014). Data collection is therefore a vital ongoing task to monitor groups and pick up risks and strengths that are evolving and emerging in the population.

In general, psychological distress during the pandemic has been associated with a number of factors¹⁵, including high estimates of personal risk (Hyland et al., 2020; Shelvin et al., 2020), living with others, (especially children: Hyland et al., 2020; Shelvin et al., 2020; Solomou et al., 2020), loss of income because of the pandemic, having a pre-existing health condition, and exposure to the virus (Shelvin et al., 2020). Multiple studies have identified frontline health workers as being at risk from contagion and potentially at risk from stress-related mental health issues (e.g., Kisely et al., 2020). Some groups emerging from the context as potentially at risk are discussed below.

Indigenous and ethnic groups

¹⁴ Intersectionality: "the interconnected nature of social categorisations such as race, class, and gender, regarded as creating overlapping and interdependent systems of discrimination or disadvantage" (Oxford dictionary, 2019).

¹⁵ See section on 'specific groups at risk' in section two of this report and UN open letter by 800 MH specialists: <https://gospeakyourmind.org/sites/default/files/2020-09/COVID-19%2BOpen%2Bletter%2Bpress%2Brelease.pdf>

Socioeconomic difficulties and pre-existing health conditions are contributing to ethnic disparities in COVID-19 (Holuka et al., 2020; Killerby et al., 2020). Health and economic disparities for Indigenous peoples are confirmed in several studies (Gelaye et al., 2020; Ministry of Health 2018; Webb-Hooper et al., 2020), highlighted in the UK by Marmot (2020), and commented upon in China (Wang & Tang, 2020). For example, in the United States, the death rate for the African American population is 2.65 times higher than the rate for all other groups (Osofsky et al., 2020).

Māori

Although a numerical minority comprising approximately 14% of the population of Aotearoa New Zealand, Māori are often over-represented in negative health and mental health statistics. This, combined with historical data suggesting Māori in the 1918 flu pandemic were 7 to 8 times more likely to die than non-Māori (Wilson et al., 2012), suggests disproportional representation of Māori in COVID-19 related impacts should be expected. Modelling from Te Pūnaha Matatini¹⁶ projects that the Infection Fatality Rates (IFR) for Māori and Pasific peoples would be more than double that of Pākehā (James et al., 2020). Up to May 2020, Māori made up 8% of confirmed cases (McMeeking et al., 2020). However, IFRs for Māori (had the numbers of cases continued to increase over 2020) were expected to have been much higher, due to systemic racism within the healthcare system and other inequities not reflected in official data. The pandemic is still evolving in Aotearoa New Zealand and there is as yet limited evidence as to how COVID-19 IFRs may vary by ethnicity.

Pacific peoples

The snapshot report of Pacific peoples in Aotearoa New Zealand prepared by the Ministry of Pacific Peoples (2016) highlights the unique features of a young, fast-growing, diverse, and urbanised population, made up of at least 13 distinct ethnic groups and languages from Island nations across Te moana nui a Kiwa (Oceania). Auckland is often affectionately known as the largest Polynesian city in the world (Alefaio, 2007; 2020) with one of the largest populations (Faleolo 2019; Statistics NZ 2006). In an August COVID-19 outbreak, the Pacific community in South Auckland was particularly affected, making up 74% of the active cases. Like Māori and other marginalised communities, social determinants of health exacerbate the impact of COVID-19. Major concerns for the Pacific peoples' community in South Auckland have been raised by leading Pacific health specialists Associate Professor of Public Health Dr Collin Tukuitonga and Dr Debbie Ryan; these concerns were centred on the poor social conditions (such as crowded housing and poverty) and a high prevalence of comorbid conditions (such as diabetes) creating a

¹⁶ Te Pūnaha Matatini Centre is hosted by the University of Auckland and is a collaborative partnership with researchers from Victoria, Massey and Canterbury Universities and Motu Economic and Public Policy Research.

precipitous effect for a severe community outbreak (Radio NZ report, 2020, Leni Ma'ia'i, The Guardian¹⁷).

Those who contract COVID-19

People who contract COVID-19 experience ill-health, fear, and stigma (Wang et al., 2020b). In terms of people's physical health, many will have mild symptoms, but a minority will experience serious illness and death (WHO, coronavirus dashboard July 2020). Depending on the severity of their illness, people may face months of rehabilitation and sequelae which could lead to secondary impacts such as job losses (Carfi et al., 2020; Mahase, 2020). Patients with COVID-19 infection are more likely to suffer from a myriad of psychological consequences including anxiety and depression (Chen et al., 2020; Gonzalez-Sanguino et al., 2020; Riehm et al., 2021) and experience profound effects on their parenting and relationships (Halvorsen et al., 2020). Families and whānau of patients can experience stigma and anxiety as well as complex grief (Wallace et al., 2020) stemming from restricted access to the patient or from loss of a loved one.

Frontline personnel and carers

Increased psychological stress has been reported in healthcare professionals dealing with viral epidemics (de Pablo et al., 2020; Hacimusalar et al 2020; Kisely et al., 2020; Van Bortel et al., 2016). In Spain, as of August 2020, nearly a sixth of those infected with COVID-19 were health-care workers and one in seven in the highly stressful environment met criteria for a mental disorder (Alonso et al., 2020). A group particularly affected are the medical staff working in emergency situations who cope with patients in critical conditions, as these staff may experience fear of contaminating themselves and families (Marazziti et al., 2020) and having to deal with losing patients and communicating this loss to families. Internationally, nurses speak of shortages of staff and personal protective equipment, high turnover, and the difficult ethical and moral judgements that are required in hospitals, care homes, and the community (Shreffler et al., 2020). A review of the literature lists both protective and risk factors for healthcare professionals in their recommendations for supporting health workers along with psychosocial support measures to protect mental well-being (Stuijzand et al., 2020).

Further, other essential workers and first responders such as police, border and security officers, veterinarians, and emergency managers are working intensely and face the threat of infection and exhaustion (Etkind et al., 2020; Kim et al., 2020). In many countries, healthcare workers, workers in MIQ facilities, and others deployed in COVID-19 essential services have experienced discrimination, stigma, and abuse, including verbal and physical assault (Bagcchi, 2020; Sotgiu & Dobler, 2020).

Additionally, during increased alert levels with associated restrictions, caregivers of older adults, children, and people with disabilities have experienced increased demands on their time within a context of extended workloads, threat of contracting COVID-19, isolation from

¹⁷ <https://www.theguardian.com/world/2020/aug/19/a-devastating-impact-on-our-people-south-aucklands-pasifika-carry-the-weight-of-new-covid-19-outbreak> and <https://www.rnz.co.nz/news/national/423714/covid-19-pacific-health-leader-warns-of-potential-for-wildfire-spread-in-pacific-community>

families, or limited access to usual supports and services. Limits on person-to-person contact, when family members need care but live independently, can greatly restrict the caregivers' ability to provide support and may limit opportunities for abuse (such as elder abuse) to be detected by others (Makaroun et al., in press).

Older adults

Age is a significant risk factor for contracting COVID-19. In Italy, during the initial peak, over a third of confirmed cases and approximately 90% of deaths occurred in individuals over 70 years old (Livingston & Bucher, 2020). In the UK, the median age of patients admitted to hospital between February and April 2020 was 73 years old (Docherty et al., 2020). The knowledge held by older adults themselves that they are more susceptible can increase anxiety in this population (Morrow-Halwell et al., 2020) and in times of community contagion, older adults may experience stigma as a susceptible group (Reynolds, 2020) or be distanced from younger family members who worry about infecting their older members. These effects may be partially mediated by ethnicity, with anecdotal reports suggesting older Māori are more likely to experience increased attention and care from, for instance, whānau, iwi, and community organisations during times of need¹⁸. Older adults with underlying health conditions face even greater risk from contracting COVID-19 and the associated mental distress. With a scarcity of health resources, older adults may have difficulty accessing health and social services, even though they have the right to health care and protection under international human rights law (Human Rights Commissioner, Aotearoa/NZ April 2020).

People with underlying physical health conditions

As mentioned above, COVID-19 presents a higher risk to health for individuals who are already immunocompromised or have underlying noncommunicable diseases (NCDs) such as diabetes, hypertension, cardiac disease, chronic lung disease, and cancer (Clark et al., 2020). The threat of COVID-19 may create fear and anxiety, further exacerbating problems for those people living with underlying health conditions (O'Neill et al., 2020), including those with auto-immune diseases who may be unable to receive the COVID-19 vaccination. For example, people with pre-existing, stable cardiovascular disease (CVD) and experience distress have a higher risk of cardiovascular death (Hagstrom et al., 2018).

People with pre-existing mental distress problems

Population estimates for mental distress are around 5% but this can increase to more than 20% in times of conflict or major crises (Charlson et al., 2019). This is supported by emerging data from the United States that indicate mental health symptoms are increasing as a result of the pandemic (National Centre for Health Statistics, 2020) and from emerging local research (Every-Palmer, 2020). During major crises, patients with psychiatric illness often suffer from the stigma of mental illness (Conrad et al., 2020). Many patients with

¹⁸ Natasha Tassell-Matamua feed-back from community reports.

severe and persistent mental illness face additional barriers including poverty and precarious housing (Allison et al., 2019). Members of this group with mental distress issues may include individuals who have also been exposed to recent disasters and emergency events and who are experiencing cumulative stress (Bryant et al., 2018; 2020). This group, susceptible to increases in stress or distress may see their symptoms exacerbated and their well-being reduced during the pandemic as they cope with factors such as service interruption or delay, social isolation, and economic fallout (Conrad et al., 2020).

Children and youth

The extent to which COVID-19 is shaping child and family functioning is as yet unknown. Effects vary across developmental stages and social, academic, and emotional impacts are just emerging. Children and youth have struggled with reductions in direct social contact, decreased motivation, and uncertainty caused by disrupted education (Arantes de Araujo, 2020; O'Connor et al., 2020) with reports of increased mental distress (such as eating disorders, anxiety, and depression) from multiple countries (Duan et al., 2020; Ellis et al., 2020; Every-Palmer, 2020).

Children are dependent on caregivers (Masten et al., 2015; Soklaridis et al., 2020) and their adjustment is largely contingent on the general climate and relationships in a family (Browne et al., 2015). Children often reflect the distress their family experiences (Mooney et al., 2017). Social, financial, and other stressors during the pandemic may generate heightened levels of psychological distress for caregivers and alter families' relationships and functioning. For example, Prime et al. (2020) note a heightened risk for negative consequences from the pandemic in families that experience economic hardship and racism. Reports of youth leaving education to work in order to support families (and facing the challenge of a reduced employment market) adds pressure on a potentially at-risk group (Blundell et al., 2020). Additionally, children with ongoing medical needs, including complications from childhood obesity, may not be receiving adequate care in the pandemic context from a health sector under pressure (Storz, 2020).

Employers and employees under strain

Workplaces affect people's quality of life and can either hinder or support employee well-being (Ganster & Rosen, 2013). In disaster contexts, research suggests that business owners may suffer from anxiety and depression and feel under-supported by the disaster response measures (Fitzgerald et al., 2020). In the challenging economic climate of the pandemic, businesses and workplaces have been, and continue to be, impacted by related public health measures (Fernandes, 2020) such as having to close during lockdowns, managing staff changes, reduced revenue, and facing possible permanent closure. The stresses experienced by these issues in turn impact individuals, families, and communities.

Other marginalised groups

Marginalised groups such as migrants, sexual minorities, and sex workers may have less access to care and often live in financial hardship, two factors contributing to negative consequences in the pandemic context (Blundell et al., 2020).

People with disabilities face multiple difficulties in a pandemic; during public health measures, disabled people who rely on caregivers are particularly challenged. In an survey of people with disabilities experiencing the pandemic, there was both a recognition of challenges faced by people with disabilities and an acknowledgement from members of this group that the framing, measures, and policies implemented have fallen well short of what is required (Goggin & Ellis, 2020). In Aotearoa New Zealand, an attempt to address disparities has been made via a plan published in April 2020 - the COVID-19 Health and Disability System Response Plan (Ministry of Health, 2020b). However, disparities continue to be noted in the Ombudsman's report on disability rights in the pandemic (January 2021).

There are also disparities between those who can follow recommended actions to prevent infection and those who lack resources to do so, such as people in prison or in care homes. Because of the confined situation, and often underlying health problems, these populations are more susceptible to contagion (Fisman et al., 2020; Kinner et al., 2020; Wang et al., 2020). Stress and anxiety due to the threat of illness may be compounded by the lack of social distancing possibilities and social isolation that occurs when family visiting is restricted (Franco-Paredes et al., 2020).

The negative impacts of COVID-19 that individuals and groups experience tend to interact and intersect; thus, a comprehensive and holistic psychosocial recovery approach to managing the road to recovery is required.

Psychosocial impacts: lessons from former crises

Major crises or disasters involve:

- Multiple negative impacts on health and well-being for individuals and communities
- Increased fear and stress
- Psychosocial needs which appear immediately and continue long-term
- Increased MHPSS needs even though most people cope over time
- Increased demand for cross-sector services.

Major crises negatively impact the health and well-being of individuals and communities in multiple ways: economically, socially, physically, culturally, and psychologically (Bonanno et al., 2010; Holuka et al., 2020). Psychosocial impacts can be very broad, affecting people's emotional, spiritual, financial, cultural, psychological, and social needs (Himes-Cornell et al., 2018).

Experiences from previous pandemics, such as Severe Acute Respiratory Syndrome (SARS), show that infectious disease outbreaks are associated with considerable fear in the community largely due to the evolving nature of an outbreak and uncertainties about

the disease, particularly where risk of illness and death are substantial (Person et al., 2004).

Experiences from the Canterbury earthquakes (Mooney et al., 2017; Morgan et al., 2015) and overseas disasters (e.g., Bryant et al., 2018; 2020), show that mental health and psychosocial needs are immediate and continue long-term, often for years from the onset of the crisis. In Italy, for example, young adults affected by the 2009 L'Aquila earthquake continued to experience psychological distress seven years later (Piccardi et al., 2017). Similar reactions were found in some first responders several years after crisis events (Giannini et al., 2016).

Research suggests that crises are particularly difficult for those in the community with pre-existing mental health problems (Every-Palmer et al., 2020; Mounsey et al., 2017). Following Hurricane Katrina in the United States in 2005, there was an increase in depression, anxiety, substance abuse, and PTSD symptoms in a minority of the affected population, although for many these symptoms lessened slowly over time as family and community stability returned (Osofsky et al., 2015).

While a rise in psychiatric morbidity and psychosocial problems is to be expected in a minority of the population following a disaster, it is clear that most affected individuals, families, and communities demonstrate resilience and cope with exposure to stressors without major mental health consequences (McFarlane & Williams, 2012; Olf et al., 2019). Nevertheless, the majority of all affected people will benefit from psychosocial support (IASC 2020; Jacobs et al., 2019), which will need to be cross-sectoral as psychosocial needs cover a wide spectrum of both psychological and social determinants of well-being. A holistic model and approach to psychosocial support and well-being is needed.

2. PSYCHOSOCIAL RECOVERY: APPROACHES, PLANNING AND INTERVENTIONS

Psychosocial recovery

Psychosocial recovery aims to “minimise psychological, physical and social consequences, and to enhance the emotional, spiritual, cultural, psychological, social and physical well-being of individuals, families, whānau and communities in the immediate response phases, and in medium to long-term recovery” (cited in Kia Kaha, Kia Māia, Kia Ora Aotearoa: COVID-19 Psychosocial and Mental Well-being Recovery Plan, Ministry of Health 2020a, from the Canterbury District Health Board). Psychosocial recovery processes seek to support communities by building upon strengths, viewing people as being in charge of their own lives rather than as victims (Bisson et al., 2010; Duckers et al., 2018). Psychological and social processes are interconnected. A dynamic relationship exists between psychological, social relationships and societal consequences, each continually interacting with and influencing the other (Sturmberg & Martin, 2020).

Principles and approaches for psychosocial recovery

Principles

Key principles for MHPSS interventions (IASC 2020; Wessells, 2009) to protect and foster well-being are:

- do no harm
- be aware of cultural norms and sensitivities
- promote human rights/ equality and inclusivity
- use participatory approaches
- build on existing resources/ capabilities using a strengths-based approach
- work with integrated support systems

In psychosocial recovery, the above principles should be considered as they protect well-being and enhance recovery (Allison et al., 2018; Mounsey et al., 2017). How we do psychosocial support matters. Inappropriate interventions have a capacity to harm people already impacted. In addition, being aware and valuing local cultural norms and attitudes such as Tikanga Māori is necessary, as they are important to the lived experience of individuals and communities and influence their recovery. For example, “Although each Pacific culture is unique, in general the notion of self-reliance [in the face of a crisis] is not based on the individual, but rather on the notion of kinship ties— “aiga” or family” (Alefai, 2020, p. 1). Incorporating how te ao Māori perspectives, Pasifika concepts of well-being, and cultural values of diverse groups are understood and how they affect recovery processes can enhance mainstream psychosocial practice and prevent harm.

Psychosocial principles include inclusivity and reflect the need to be aware of attitudes towards marginalised groups (e.g., prison populations, LGBTQIA+ people, sex workers, migrants), as these groups often have less access to support through instances of stigma and discrimination. Actively working collaboratively with these groups should be integrated into any psychosocial support plan. Psychosocial recovery should thus address all determinants of well-being and adaptive recovery through active participation, where members of communities decide on needs and means of support for these needs. Multiple resources can be found in the community:

“socio-cultural capacities and capabilities, the strengths, attributes, and resources (e.g., coping abilities, knowledge, relationships, leadership etc.) collectively available from community, societal and organizational sources (UNISDR, 2015), influence people’s disaster experience and outcomes.” (Paton et al., in press 2020).

Approaches

“Psychosocial support activities should be planned for whole communities, focusing both on individual and community needs, and on their resources to cope and recover. Such activities can help individuals, families and communities to overcome stress reactions and adopt positive coping mechanisms through community-based activities.”

IFRC & Reference Centre for Psychosocial Support, 2009, p. 31

The WHO considers the provision of comprehensive, integrated, and responsive mental health and social care services in community-based settings as the universal state of the art of mental health care systems (WHO, 2013). A **community-based approach** prioritises preventive, response, and recovery measures to address issues in both the psychological and social determinants of mental well-being anchored in the community. Psychosocial support for whole communities includes recognising and building on existing resources and capacities, listening, and forming partnerships. Community resources pertinent to well-being and recovery from crises include cultural, symbolic, moral, political, human, natural, and economic areas.

A stepped-care approach to psychosocial recovery

The Inter-Agency Standing Committee (IASC) provides evidence informed guidelines for MHPSS in response to COVID-19, recommending the integration of multiple levels of intervention across sectors (IASC, 2020¹⁹). The model focuses on the overall needs of an affected population for psychosocial support as well as the provision of specialist mental health intervention for a minority of the population who are badly affected or who have pre-existing mental health issues (Charlson et al., 2019). In this stepped-care model (see Annex 1), psychosocial recovery is fostered through cross-sectoral collaboration, communication, and coordination on all levels, so that the needs of the community in all aspects of well-being are supported and addressed (Lorenzoni et al., 2020).

The stepped-care approach in Aotearoa New Zealand

The approach to COVID-19 Psychosocial and Mental Well-being Recovery in Aotearoa New Zealand (Ministry of Health, 2020a) incorporates this stepped-care approach²⁰ but inverts the original IASC ‘pyramid’ to emphasise the need for a greater focus on preventive population-wide psychosocial initiatives and on a community-led recovery (see Figure 1) and to better illustrate the amount of mental health resources typically needed when attending to mental health and psychosocial demands following a crisis.

¹⁹ IASC COVID-19 updates and guidelines are available on the IASC site:

<https://interagencystandingcommittee.org/covid-19-outbreak-readiness-and-response>

²⁰ The stepped-care approach upholds obligations of Te Tiriti: As stated in government wellbeing and psychosocial planning “It is the Crown’s obligation to uphold Te Tiriti and protect and promote Māori health and equity.” (Revised Psychosocial and Mental Wellbeing Plan, p 8 December 2020)

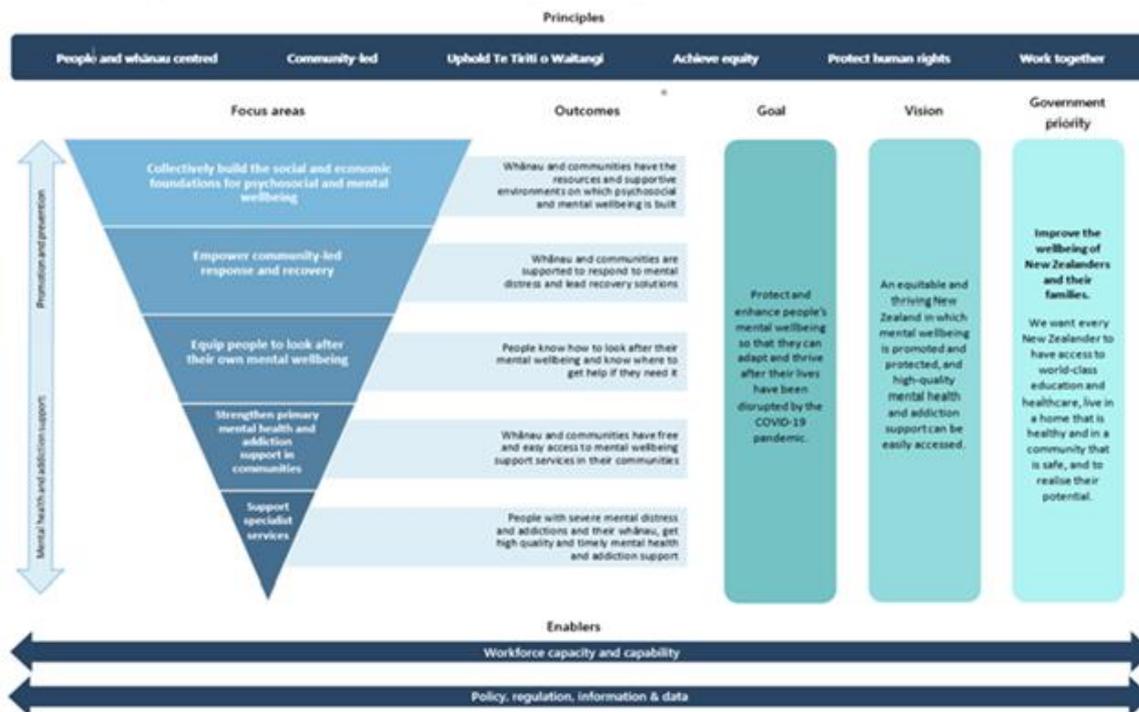


Figure 1: COVID-19 Psychosocial and Mental Wellbeing Recovery (Ministry of Health, 2020a)

The change in focus represents a paradigm shift from a primary focus on mental health reactions and specialist services for mental distress to one supporting psychosocial support within the whole community; it recognises that for individuals and communities affected by a crisis, supporting self-help and self-efficacy and strengthening personal and community resources, capacity, connection, and resiliency are the keys to successful psychosocial recovery (Hobfoll et al., 2007). In successful psychosocial recovery, rebuilding a sense of individual and collective agency and fostering effective coping strategies at every level of society will promote mental well-being and foster resilience.

Community-led psychosocial recovery will be a co-production with government agencies and communities. The agencies can support and empower the community to take an active role in their recovery by community-led processes that engage with their needs, cultural practices, and future aspirations, and by contributing to the additional support required (AIDR, 2018; MacDonald et al., 2020). To empower people and communities to cope with their situations and contexts, government and non-government organisations can complement the community-led processes by contributing to individualised and community development programmes that build community well-being, providing leadership, facilitation, funding, and overview when needed (Bisson et al., 2010; Lorenzoni et al., 2020).

Where active community participation has not been the focus in agencies or regions, the community-led focus will take investment (e.g., training, capacity-building, surge capacity, facilitation) to empower communities. However, working through community-led solutions and consistently listening and responding to feedback, doubts, and concerns will improve

the way psychosocial support is designed and lead to better and more sustainable outcomes (Bakic & Ajdukovic, 2019).

In Aotearoa New Zealand, psychosocial recovery will involve a collaboration between official bodies and affected communities (AIDR, 2018). The paradigm shift of prioritising community-based and led psychosocial recovery may take time to develop and adapt as fully implementing community-based interventions will require a different orientation and partnership between government and communities. Ideally this collaboration should have been built pre-pandemic as it takes time and effort to build capacity and partnerships across all MHPSS and social services. This is particularly a challenge when services are under strain (Allison et al., 2018) and surge capacity needs to be found during a crisis.

Psychosocial interventions in crises

What we know so far

- Many people impacted by a crisis such as the COVID-19 pandemic are likely to experience distress and will consequently benefit from some form of psychosocial support (Barbui et al., 2020; IASC 2020; Jacobs et al., 2019; Soklaridis et al., 2020).
- For most, the care and support of families, whānau, and friends and access to basic psychosocial support the community will be effective, and they are unlikely to experience lasting negative mental health outcomes (Olf et al., 2020; Pfefferbaum & North, 2020).
- For others, more formal or professional interventions will be needed and a small proportion of people will need specialised mental health services (Allison et al., 2018; Charlson et al., 2019) over some time (Camilleri et al., 2020).
- For some people, facing crises, although unpleasant, can lead to them developing increased capacities (Chen et al., 2021; Harms et al., 2018), an adaptation known as Post Traumatic Growth (Carra & Curtin, 2017). It is likely that as the pandemic continues, some will develop or further enhance personal skills such as effective coping strategies (Chew et al., 2020) or develop work-related skills as seen with health and education workers moving their teaching and consulting online (de Luca & Calabrò 2020; Greenhalgh et al., 2020; König et al., 2020).
- Even for people showing positive adaptation to the pandemic context, psychosocial support will scaffold the growth (Kunzler et al., 2021).

Psychosocial recovery interventions have evolved over the past decade to become more multidisciplinary with some broad principles that can apply to all responses (Hoffer & Martin, 2019):

- Psychosocial recovery interventions need to start from the onset and continue for a considerable time as consequences will continue to impact communities over years (Bryant et al., 2020; Picardi et al., 2017).

- To assist individuals and communities to recover and build coping capacity, psychosocial recovery interventions should be responsive to the context in which they are applied (Alefaió 2020; Barbui et al., 2020; Osofsky et al., 2019; Quinn et al., 2020).

A wide range of interventions have been used in the past. They include Psychological First Aid, Skills for Psychological Recovery, psychosocial education and messaging, bereavement counselling, spiritual and pastoral care, and practical support such as access to transport and childcare (Barbui et al., 2020; IASC 2020). While the evidence base for the effectiveness of psychosocial interventions is growing (Jacobs et al., 2019; Pfefferbaum & North, 2020; Soklaridis et al., 2020) – for example, a cluster-randomised controlled trial found that Psychological First Aid training improved knowledge and skills in providing psychosocial support (Sijbrandij et al., 2020) – there remains a lack of systematic analyses of specific psychosocial interventions and service delivery (Jacobs et al., 2019; Mounsey et al., 2017). This is urgently needed, particularly where there is rapid expansion and innovation as in the field of tele-health. Nevertheless, some evidence is accumulating, such as the effectiveness of combining public health messaging through social media in community campaigns such as the All Right? Campaign in Canterbury (Calder et al., 2020) and research is emerging on the efficacy of psychosocial interventions during epidemics (Kunzler et al., 2021). Enhancing adaptive and proactive coping strategies appears useful in managing stress and living with uncertainty (Giannini et al., 2016) and could be taught to all ages and sectors of affected communities (Mooney et al., 2017; Piccardi et al., 2017), including through online services²¹.

Extensive research documents the importance of social support, social connection, and community participation for psychosocial recovery (e.g., Espinosa & Rudenstine, 2019; Saltzman et al., 2020; Townshend et al., 2016). Social connections can buffer the negative effects of crises (Shakespeare-Finch et al., 2019), engender trust (Paton, 2013), and enable the flow of information and access to resources, which are critical during recovery (Aldrich, 2016). A review of psychosocial recovery highlighted the importance of interventions that build and sustain supportive partnerships within families and communities, recognising existing and fostering new social and support networks which help people support each other and which foster a sense of control over their lives (Mounsey et al., 2017).

Psychosocial recovery planning in general

Psychosocial recovery plans need, as much as possible, to be evidence informed and flexible enough to stay relevant in evolving situations. As such, psychosocial recovery plans should be sensitive to community and cultural diversity, acknowledge inequities, and provide genuine opportunities for inclusion and connection.

²¹ Online training is now rolling out. For example, the IFRC online courses for Psychological First Aid in COVID-19.

Central and regional agency psychosocial planning in the COVID-19 context

Physical and psychosocial health are linked, which should be reflected in policy and planning. For example, experiences in Taiwan suggest that it is important to consider psychosocial aspects in disease control policy (Lin & Cheng 2020). Research and good practice highlight the following elements:

- Act immediately to strengthen provision of community-based psychosocial support
- Put in place monitoring of needs with common indicators across sectors
- Provide psychosocial messaging about usual reactions and management of stress in culturally diverse ways
- Engage and work with community: recognise, scaffold, and support local initiatives
- Work to increase surge capacity through increased numbers and training
- Support the supporters
- Address disparities

The global nature of the COVID-19 pandemic has wide reaching implications with most people impacted in some way. A stepped-care approach is needed to cover basic psychosocial support through to the provision of specialised mental health care.

To ensure that resources are appropriately targeted, ongoing assessment of needs in the evolving pandemic context will be necessary, as well as clear care pathways for the minority of people requiring specialist mental health services.

As the pandemic will exacerbate disparities, awareness of the contribution of environmental and social factors (e.g., financial insecurity, disrupted social support, and uneven access to care) on psychosocial health needs to be integrated into the development of social policy related to psychosocial recovery. This includes supervising funding decisions so that inequities are not worsened (Quinn et al., 2020; Ulubaşoğlu et al., 2019).

It is crucial to plan for an increase in appropriate supportive and therapeutic psychosocial interventions from the short to long-term. Increases in mental health needs are to be expected for some time (Karatzias et al., 2020). It takes time to recover well-being (Ghuman et al., 2014; Harkins 2020) and some people, including first responders, can still experience distress after decades (Tanaka et al., 2019). Post crises, physical and psychosocial impacts can continue for years (Picardi et al., 2017; Simpson & Robinson, 2020).

Given the scale of the pandemic, and that many health services were under strain before the crisis, there is a need not only to address surge capacity but to build existing capacity. With the change of focus from specialist medical care towards general psychosocial support (with referral when necessary), upscaling the integration of psychosocial support

services into general practice and other community settings could be necessary²². To provide services, increases in staff and training to address the need are to be expected. Additionally, in the light of expected financial hardship (a social determinant of mental distress), there is a need to provide cross-sectoral, wrap-around help for those searching for employment or suffering hardship. A good example of wrap-around services in this area is provided by whānau ora – Te Whānau o Waipareira Trust.

As psychosocial impacts cover multiple areas, planning for MHPSS should be cross-sectoral and consider varied needs such as from financial hardship from secondary stressors of the pandemic, increases in addiction behaviour, and distress from isolation when in hospital or in care homes. Planning for an increased risk of domestic conflict and violence (Choi et al., 2020; Peterman et al., 2020), for example, might include interaction with animal welfare and human welfare services as both pets and humans are often exposed (Campbell, 2020).

Government initiatives to address the need for specialist care is emerging at national and community levels. For example, the increase in access to mental health and addiction services recommended by the He Ara Oranga Mental Health and Addictions Inquiry report (Allison et al., 2018) is helped by the Government's May 2019 Well-being Budget in the form of 'Increased Access and Support of Primary and Community Mental Health and Addiction' and the acceptance of the majority of the He Ara Oranga recommendations. However, in the COVID-19 context, MHPSS needs continue to increase.

Monitoring mental well-being during a pandemic is a priority when developing a psychosocial recovery plan (Salari et al., 2020). MHPSS will fluctuate as the pandemic impacts peak and wane. This need for updated data highlights the interest in registration of individuals and groups who have ongoing needs or those who can provide MHPSS. Monitoring the well-being of responders and agencies involved in recovery should be part of any plan. Data to assess and monitor needs and resources should be collected in such a manner that it can be disaggregated into categories such as region, gender, age and ethnicity to reveal inequalities between different sub-categories (Kim et al., 2020). Interpretive and Indigenous methods of data collection should also be considered, as diversity in data collection can provide a clearer idea of impacts (Quinn et al., 2020). In this way, resources can be better targeted to need²³. Frameworks for collecting data on the psychosocial impact of COVID-19 are emerging (Amour et al., 2020).

Lengthy crises, such as the pandemic, can increase the experience of stigma, prejudice, and racism in communities. Plans need to address this. Instances of stigmatisation can be reduced by stigma reduction initiatives such as statements against anti-Asian stigma (CDC, 2020; WHO, 2020a), positive media portrayals, national leadership speaking out to denounce racism, and providing psychosocial assistance in an equitable manner (Misra

²² To ease the transition from primary care clinicians to more specialised services, Health Improvement Practitioners (HIPs) are in some integrated family health centres in Aotearoa New Zealand.

²³ This is illustrated in August 2020 where data information was released about the ethnic identity of the new COVID-19 cluster in Auckland: Dr Collin Tukuitonga, in E-Tangata August 23 2020, noted that this was a correct decision as specific ethnic information improved the ability to target services and to advise the government on what the most appropriate action might be. However, in parallel, interventions to avoid stigma need to be in place when groups are specified.

et al., 2020). Part of any central agency psychosocial planning should address communication.

Communication in psychosocial recovery

Effective psychosocial recovery relies in part on people being able to access accurate and timely information and so communication should be a key element in central and regional planning. Communication of relevant, trusted information will play a critical role in reducing uncertainty, encouraging self-efficacy, and enabling people to manage even in the midst of crisis (Pfefferbaum & North, 2020).

In the COVID-19 context there has been an unprecedented flow of information from news coverage, health authorities, politicians, and social media. This barrage of information needs to be addressed as it frequently includes rumours and incorrect information which has negative impacts on people (Stolow et al., 2020) and can undermine trust in authorities. Clear, concise, and accurate public communication such as that on the Aotearoa New Zealand Government website²⁴, across a range of media platforms likely to be accessed by different demographics, is essential (Finset et al., 2020; MacDonald et al., 2020; O'Neil et al., 2020).²⁵

To be part of effective psychosocial support, messaging should include the likely impacts of COVID-19 (stress, grief and loss, risks of violence), normalise common reactions, inform about stress management²⁶ and possible coping strategies, and provide clear guidance on where support can be sourced.

Communication should be in simple and clear language, such that it is accessible to all²⁷ including different ages and those from culturally and linguistically diverse backgrounds. Cultural sensitivity is central to effective COVID-19 messaging for community well-being and engagement (Airhihenbuwa et al., 2020). The cultural logic of different societies shapes and influences their prevention strategies, whether they be an individualistic or a collectivistic society (Alefaio, 2020). Therefore, COVID-19 communication and messaging in the cultural context of Aotearoa New Zealand needs to address community risks and community-centred psychosocial strategies in diverse, culturally appropriate ways.

As both the pandemic and related public health messages evolve, continued effort will be required to ensure that communities understand the rationale for the strategies and have confidence in their ability to follow any recommendations (Seale et al., 2020). In 2021, this would include vaccination behaviours. Messages should highlight that people are able to achieve the actions necessary to mitigate or eliminate COVID-19 contagion. Factors shown to influence behaviour include an individual's belief in their own capacity (self-efficacy) and belief in protective actions being feasible and effective (Seale et al., 2020).

²⁴ <https://covid19.govt.nz/>

²⁵ Use of PIMS and technical/scientific support for messaging is constructive.

²⁶ The Mental Health Foundation of Aotearoa New Zealand is a source of messaging (e.g., the 'All Right' campaign).

²⁷ An example is the use of sign language interpreter at press conferences when authorities are providing updates on COVID-19 information.

This is a more promising approach to health messaging than scare tactics (Kok et al., 2018).

Framing messages that convey to the public that 'we are in this together' have been used by government leadership in Aotearoa New Zealand (McGuire et al., 2020). Some argue that this engenders a sense of community and connection and counters expected divisions within or between communities and any decrease in social cohesion as the crisis continues (Poulton et al., 2020). However, messages need testing on groups in the population to ascertain whether the approach used is culturally appropriate and accepted. Feedback from diverse groups is needed as the pandemic evolves.

In summary, emerging research promoting behavioural change in the COVID-19 context highlights elements such as messaging that is constructive and aims to reduce fear and uncertainty, revealing knowledge about COVID-19 as the pandemic evolves, including what is known and not known. The messaging should provide consistent and specific information in a decisive way adapted to the diversity of audiences and acknowledge emotions while being empathetic (Finset et al., 2020). Messaging that promotes financial incentives, emotional support, and positive recognition of compliance can be useful for those who are in situations of socio-economic precarity and who cannot easily adopt measures such as staying at home when unwell (Marmot, 2020; Stolow et al., 2020).

Over the coming months, if not years, accurate and effective communication will continue to be important and should anticipate emerging issues such as new public health directives, changes in compliance levels, and vaccine efficacy and availability.

Training during the pandemic and beyond

Training for multiple providers in the assessment and delivery of psychosocial support will be needed throughout the pandemic. For example, all health professionals would benefit from education and training in psychosocial issues yet most working with COVID-19 patients and families (including those working in isolation units and hospitals) do not receive training in psychosocial support and recovery (Marazziti et al., 2020; Xiang et al., 2020).

When professional mental health services are stretched, training non-specialists can build capacity²⁸ and empower communities to provide appropriate levels of psychosocial support (Sijbrandij et al., 2020). However, this takes time (Soklaridis et al., 2020) and the nature of the pandemic and associated public health measures require flexible approaches. Research highlights that training of frontline personnel in PSS can increase capacity to support and have positive benefits for personnel (Kunzler et al., 2020). Since the outbreak of COVID-19, for example, training for interventions such as Psychological First Aid are being offered online. It is highly advisable that such training is adapted to the local context, as it is in Aotearoa New Zealand by the New Zealand Red Cross, and by

²⁸ Vikram Patel, professor of global health and social medicine at Harvard Medical School, has created digital training materials to train community workers in delivery of evidence-based PSS.

adopting appropriate models of psychosocial intervention in trainings including the Te Whare Tapa Whā and Fonofale²⁹ approaches, LeVA, and MH Foundation LifeKeepers.

Supporting community-led psychosocial support in planning

The effective approach to psychosocial recovery planning involves a co-production between government (multi-sectoral policies, technical support, funding, etc.), regional agencies, and community members. Active participation by local communities in psychosocial planning should improve the match between service development and delivery to attend to diverse needs.

To obtain an effective co-production, it is vital to identify the processes, structures, and resources needed to facilitate authentic community participation in decision-making. Engaging with, and working alongside, communities under stress involves more than the sharing of information; communities must be enabled and empowered to actively participate in the identification of needs and solutions and to plan for psychosocial recovery (MacDonald et al., 2020).

It is important to establish partnerships and information pathways as a means of reaching all groups in the community, to be able to obtain vital data on evolving needs, and to link with successful community responses that can then be adapted to other groups in need. Some factors may inhibit participation by some groups (e.g., need for childcare, transport, flexible meeting times, structural racism). Truly inclusive planning that includes groups that are marginalised such as the LGBTQIA+ community (Dominey-Howes et al., 2014) and values diversity in systems like the family structure (e.g., single-parent, reconstructed) may result in fewer individuals or groups being excluded from access to relevant, meaningful psychosocial support and thus help to mitigate existing health and social inequities.

Community-based support is strengthened through culturally appropriate interventions. This includes the recognition and support of existing local initiatives that can be drawn on for psychosocial recovery³⁰. One example of a cultural resource is the concept of Hauora, a Māori philosophy of well-being seen in the Te Whare Tapa Wha model that encompasses the physical, mental and emotional, social, and spiritual dimensions of health³¹. The inclusion of other te reo Māori terminology and perspectives, such as manaakitanga and aroha, have also become an effective tool for fostering resilience at both a personal and community level across the population of Aotearoa New Zealand³². To date, the Māori responses to the pandemic show a strengths-based, community-led

²⁹The Te Whare Tapa Whā and Fonofale models take into account the cultural and family contexts as well as psychosocial needs of Māori and Pasifika communities.

³⁰ See, for example, Te Taitimu Trust: a community initiative based in Flaxmere for Māori children, adults, and families, many of whom have gang backgrounds, challenging home environments, and compromised health, and Vaka Tautua - a national 'by Pacific for Pacific' health and social service provider with offices in Auckland (West and South), Wellington, and Christchurch, providing different levels of service.

³¹ These four walls of the whare are dimensions in health: taha hinengaro – mental health and emotions; • taha wairua – spiritual health; • taha tinana – physical health; and • taha whānau – whānau as the epicentre of one's well-being. A fifth dimension, whenua - connection with the land - was suggested in 1997.

³² See **Tassell-Matamua, N. A.**, Lindsay, N., Moriarty, T. R., & Haami, D. (in press). *Indigenous Māori notions of spirit and spirituality as enablers of resilience and flourishing in Aotearoa New Zealand*. In H. Weaver (Ed.), *Routledge handbook on Indigenous resilience*.

approach where Māori organisations across Aotearoa New Zealand contacted whānau, gathered information on needs, and distributed resources (McMeeking et al., 2020). Māori mobilisation approaches of culturally adapting support initiatives (adapting tangihanga), promoting social cohesion, using known information channels and distributive networks, and working on community protection was successful in keeping this population safe and supported and can inform future policy (Savage et al., 2020). Similar information is coming from grey literature surrounding the Pasifika response to the South Auckland cluster outbreak³³. This highlights the importance of embedding culturally appropriate approaches into psychosocial interventions in Aotearoa New Zealand³⁴.

Local care providers, community health workers, and others supporting at-risk groups can help people address the issues in their lives that cause distress and affect their health and well-being (including the ability to get basic food and housing, to access emotional and social support, to find employment, and to feel supported in caring for children or dependent parents). Health and social care providers have an important role in monitoring psychosocial needs and delivering psychosocial support to individuals and affected communities. An expanded community health workforce, with knowledge about and ability to access local resources, can respond to the increased need for social, material, and psychological support in the COVID-19 context. However, it is essential that they receive appropriate training and supervision, as well as support for their own health and well-being as they deal with an increase in service demand. Surge capacity in both specialised mental health and psychosocial support services will be needed to address the COVID-19 context.

Psychosocial recovery intervention for specific groups

Five key elements identified over a decade ago (Hobfoll, et al., 2007) to guide psychosocial recovery planning remain relevant for all well-being and psychosocial support:

1. promote a sense of safety
2. promote a sense of calming (e.g., by providing reassurance and communicating strategies to reduce worry, fear, and distress)
3. enhance self-efficacy and community-efficacy (give people a sense of control over positive outcomes)
4. promote connectedness, encourage support networks, and help people to feel part of their community
5. instil a sense of hope and optimism for the future.

Some groups have already emerged as more 'at risk' from physical and mental health impacts. The list of groups emerging as 'at risk' is not exhaustive; other groups have been

³³A Red Cross Pasifika team reported survey results of Pasifika family responses to the initial alert levels (September 2020) and gave insight into the Pasifika community response in South Auckland, where mobilisation and support chains worked in the local community.

³⁴ These initiatives were recognised as enabling and effective and were largely supported by government.

signalled as highly impacted by the pandemic, such as hospitality workers, people in the tourism industry, veterinary services, and those who face other crises concurrently (e.g., rural communities facing droughts, M. bovis, and COVID-19). Individuals in crisis may have an accumulation of 'at-risk' characteristics (Kapilashrami & Hankivsky 2018) and be more susceptible to COVID-19 impacts.

When designing and targeting psychosocial support to specific groups, it is important to acknowledge the diversity in needs and capacity within groups and communities as well as to have a collaborative approach from agencies to address multiple, cross-sectoral needs³⁵. Equally, it is necessary to frame psychosocial support not in a 'deficit-oriented framework' but to focus on empowerment and inclusivity. Groups and communities must be active participants who are able to express needs and work on responses to those needs³⁶. Because stigma is frequently attached to needing psychosocial support³⁷, it is important to include proactive services that practise outreach and accessibility.

Culturally appropriate approaches are emerging for MHPSS intervention (Faleafa, 2020; McMeeking et al., 2020) and approaches are adapting in times of lockdown to access groups in need (See following inset for online services).

³⁵ An example of mapping of resources and gaps can be found in The Community and Social Recovery Needs and Capacities in Ashburton District in Covid-19 Times Report (September, 2020)

³⁶ Contacting and partnering with groups, such as people with disabilities, can provide insight into needs and capacities. This has been ongoing in the Canterbury Region.

³⁷ For example, culturally many men are often expected to cope and remain stoic in times of disaster and in the aftermath. As a result, many men fear the repercussions of asking for assistance (Zara et al., 2015).

Tele-health and psychosocial support delivery

The COVID-19 pandemic has fast-tracked the development and widespread adoption of technology in mental health care (Liu et al., 2020). In many countries, psychosocial services are increasingly delivered in primary care settings by means of tele-health or tele-counselling when face to face contact is restricted. This also enables wide geographical contact with populations in need (DeLuca & Calabro, 2020) including rural populations. Social media and digital health interventions have been developed as ways to extend and support existing interventions, as well as to involve patients and the general public more actively in their own care (Soklaridis et al., 2020).

Various forms of tele-health intervention (e.g., tele-counselling) have been reported as being effective in some settings (Karyotaki et al., 2018; MacDonell & Prinz, 2017; Zhou et al., 2020). It has been suggested that tele-health could be extended to medication supplies, increased mental health training for providers, virtual peer support, and virtual substance use support groups, to help ensure that community mental health needs are met (Choi et al., 2020).

There is evidence, however, that online resources or psychosocial interventions are not as effective for socially-disadvantaged populations (Conrad et al., 2020; Prime et al., 2020) and where individuals or groups do not have access to resources or skills to access services (ONS, 2019), such as children or some older adults. There is evidence that health workers need more skills to provide effective online support (McBeath et al., 2020) and tele-health is difficult in some situations such as palliative care (Dhavale & Fernandez, 2020).

While psychosocial interventions for specific groups have been suggested from emerging research (see below), many of these will be relevant to other groups and to affected individuals and communities generally. Most psychosocial interventions will need to empower people to focus on goals such as maintaining a degree of control, limiting time spent on media or watching news, and focusing on self-care (e.g., sleep, exercise, nutrition, social connection), as well as messaging to increase understanding that it will take time before the pandemic and its consequences are over.

Those who have contracted COVID-19, their families, and whānau

- Psychosocial care packages for COVID-19 patients and whānau (Morris et al., 2020) can complement the medical services.
- Training for frontline health professionals in the core concepts of psychosocial support (including self-support) is needed, so they can provide mentoring to aid psychosocial recovery of patients and their whānau, to protect themselves and support other health workers (Stuijzand et al., 2020).

Healthcare and other frontline and essential service workers

- Health professionals at risk of experiencing psychological distress and moral injury can benefit from tele-health support and targeted psychosocial interventions (Soklaridis et al., 2020).
- Monitoring levels of stress and distress is important for these workers (Lu et al., 2020; Chen et al., 2021) to enable adequate support and prevent turnover.
- A layered response for health teams can be effective, comprising strategies/actions aimed at prevention through to treatment and at different levels, from organisational and team/ward responses to individual self-care and peer support (Kunzler et al., 2021; Maben & Bridges, 2020).
- Elements of organisational response for healthcare (and other frontline) workers that provide psychosocial care include: the provision of timely, accurate, and evidence-based information; visible and easily recognised leadership that acts as a role model; positive reframing of the COVID-19 experience as a challenging/learning experience; peer support practices; normalising difficult reactions; and watchful waiting and monitoring for ongoing mental distress (Tomlin et al., 2020).
- Psychological First Aid training for primary care workers can enable them to be more effective with patients and increase their self-care (e.g., Kisely et al., 2020).
- See also the strategies in Stuijzand et al. (2020) and Wald (2020) for health workers.

People at higher risk of contracting COVID-19

This includes older adults and people in overcrowded conditions (for example lower socio-economic groups, prison populations, care-home populations, some people with disabilities), especially when combined with imposed isolation.

- Use a cross-sectorial collaborative approach with inclusivity, outreach, and cultural sensitivity (e.g., Goggin & Ellis, 2020; Parker et al., 2016; Webb Hooper et al., 2020).
- Telephone or video contact can reduce isolation, provide psychosocial support, and pick-up need for referral (e.g. from an unsafe or abusive situation or need for more specialist health care, both physical and mental).
- Provide a range of services. For example, to meet the social needs of older adults in the community by including home-delivered meals, personal care services, health promotion and chronic disease management, transportation, and social engagement. Also, engage with community groups active in support, such as Age Concern for older adults and PAC19 for Pasifika³⁸.
- Engage with and listen to members of groups at higher risk – they know best their needs and the resources available. For example, the Aotearoa New Zealand Human Rights Commission recommends that any recovery programme proactively involves disabled people in the drafting and production of materials and information and ensures accessible information is available and easy to locate.

³⁸ Information at <https://www.tepou.co.nz/initiatives/pasifika-workforce-and-communities-and-covid-19/276>

Children, youth, and their families and whānau

- Most children and youth will adapt with psychosocial support, including support to parents and teachers who foster coping in children (Mooney et al., 2020; Mutch, 2018; Shanahan et al., 2020).
- Use targeted messaging and advice for caregivers through Ministry of Education or other agencies (e.g. “My Hero is you” - children’s book about managing the pandemic; IASC, 2020).
- Interventions to support children are more effective when they include family components (Haine-Schlagel & Walsh, 2015).
- Universal school-based programmes conducted by teachers or local paraprofessionals after disasters are effective in reducing mental distress in children and adolescents (Fu & Underwood, 2015).
- For youth transiting into employment at a time of economic uncertainty, wrap-around services may be necessary (Marchini et al., 2021)

People living with mental distress

The psychosocial interventions discussed here are not considered formal treatment for psychiatric disorders, although they may sometimes be appropriate interventions in addition to specialised treatment or before treatment can be initiated (Pfefferbaum & North, 2020).

- For people suffering clinical levels of distress, the literature supports cognitive behaviour therapy (CBT) (e.g., Bisson et al., 2010; Sanderson et al., 2020).
- Short psychological interventions for individuals deemed at risk, including people living in low socio-economic circumstances, has been examined as one possibility to address psychosocial needs during crises (Lo & Shieh, 2019; Soklaridis et al., 2020).
- Anxiety levels can be reduced by limiting time focused on COVID-19 news since this lessens direct exposure to potentially distress-inducing information.
- Specific planning for some groups, such as those with Acute Traumatic Stress reactions (ATS) or suicidal ideation, is possible despite physical distancing; this may include maintaining regular connection by telephone or video (e.g., Reger et al., 2020). China and Australia already used tele-health pre-COVID-19 for mental health and psychosocial support. For example, isolated rural communities in Australia have been supported in this way. [See section on Tele-health].

Employers and employees under strain

- Workplaces with cultures that are employee-centric, collaborative, and supportive of learning may be more readily able to adapt to a crisis situation (Walker et al., 2020).
- Strategies to support well-being during a pandemic include providing, where possible, a sense of job security, flexibility in the workplace, showing recognition, individualized

support to continue working, effective communications, and expressing concern for employees' health and well-being (Malinen et al., in press).

For all whole community, the effects of the pandemic are continually evolving so psychosocial planning should include ongoing assessment and monitoring to identify who is being impacted and how. Service providers and community workers need to be able to continually monitor and analyse data to see where risks are evolving and capacities are developing. This will ensure that services are appropriate and effective. Interventions may have to be adapted when public health measures (e.g., quarantine or lockdown) are activated or re-instigated (Park et al., 2020; Xin et al., 2020).

CONCLUSION

In the COVID-19 Aotearoa New Zealand context, people continue to experience distress due to the uncertain and evolving situation that brings anxiety about possible outbreaks and surges, both globally and locally. Individuals are distressed because they are concerned about, and physically disconnected from, family and whānau overseas and are worried about experiencing hardship from the anticipated global economic downturn. As a complex crisis with diverse impacts and an expected long tail, the pandemic continues to bring possibilities of economic loss, remote working and schooling, and deficient distribution of resources. Even with the positive arrival of vaccination, the COVID-19 pandemic will continue to impact negatively on Aotearoa New Zealand for some years; as such, psychosocial support needs to be an integral part of recovery planning.

Psychosocial support planning in Aotearoa New Zealand should endeavour to use evidence-informed material and gather practice-informed examples that encompass the diversity of local cultures while continuing to build resources to address needs. This report provides an overview of the evidence base for psychosocial support that can contribute to such planning.

REFERENCES

- AIDR (2018). Australian Disaster Resilience Community Recovery Handbook. <https://knowledge.aidr.org.au/resources/handbook-community-recovery/>
- Airhihenbuwa C, Iwelunmor J, Munodawafa D, Ford C, Oni T, Agyemang C, et al., (2020) Culture Matters in Communicating the Global Response to COVID-19. *Preventing Chronic Disease* 17:200245. DOI: <http://dx.doi.org/10.5888/pcd17.200245>
- Al-Busaidi, I. S., & Martin, M. (2020). Provision of primary care in managed isolation and quarantine facilities during the COVID-19 pandemic: lessons learned from Christchurch, New Zealand. *NZ Med J*, 133, 130-132.
- Aldrich DP. (2012) Building resilience: Social capital in post-disaster recovery. Chicago: University of Chicago Press; 232.
- Aldrich DP. (2016). It's who you know: Factors driving recovery from Japan's 11 March 2011 disaster. *Public Adm.* Jun;94(2):399–413.
- Alefaio, S. (2020). Mobilizing the Pacific diaspora: a key component of disaster resilience (in press).
- Allison, S., Bastiampillai, T., Castle, D., Mulder, R., & Beaglehole, B. (2019). The He Ara Oranga report: What's wrong with 'big psychiatry' in New Zealand?
- Alonso, J., Vilagut, G., Mortier, P., Ferrer, M., Alayo, I., Aragón-Peña, A., ... & Espuga, M. (2020). Mental Health Impact of the First Wave of COVID-19 Pandemic on Spanish Healthcare Workers: A Large Cross-sectional Survey. *medRxiv*.
- American Psychological Association. (2020, March). Keeping your distance to stay safe. Retrieved from <https://www.apa.org/practice/programs/dmhi/research-information/social-distancing>.
- Armour, C., McGlinchey, E., Butter, S., McAloney-Kocaman, K., & McPherson, K. E. (2020). The COVID-19 Psychological Wellbeing Study: Understanding the Longitudinal Psychosocial Impact of the COVID-19 Pandemic in the UK; a Methodological Overview Paper. *Journal of Psychopathology and Behavioral Assessment*, 1-17.
- Anastario M, Shehab N, Lawry L. (2009). Increased gender-based violence among women internally displaced in Mississippi 2 years post-Hurricane Katrina. *Disaster Med Public Health Prep* 2009; 3(1): 18–26.
- Arantes de Araújo, L. (2020). The potential impact of the COVID-19 pandemic on child growth and development: a systematic review. <https://doi.org/10.1016/j.jped.2020.08.008>
- Asmundson, G. J., & Taylor, S. (2020). Coronaphobia: Fear and the 2019-nCoV outbreak. *Journal of anxiety disorders*, 70, 102196.
- Bagcchi, S. (2020). Stigma during the COVID-19 pandemic. *The Lancet. Infectious Diseases*, 20(7), 782.

- Bakic, H., & Ajdukovic, D. (2019). Stability and change post-disaster: Dynamic relations between individual, interpersonal and community resources and psychosocial functioning. *European Journal of Psychotraumatology*, 10(1), 1614821. <https://doi.org/10.1080/20008198.2019.1672948>
- Banerjee, S., Burkholder, G., Sana, B., Szirony, M. (2020). Social Isolation as a predictor for mortality: Implications for COVID-19 prognosis. *MedRxiv* 2020.04.15.20066548. <https://doi.org/10.1101/2020.04.15.20066548>.
- Barak, Y., Cheung, G., Fortune, S., & Glue, P. (2020). No country for older men: ageing male suicide in New Zealand. *Australasian psychiatry*, 1039856220905304.
- Barbui, C., Purgato, M., Abdulmalik, J., Acarturk, C., Eaton, J., Gastaldon, C., ... & Nosè, M. (2020). Efficacy of psychosocial interventions for mental health outcomes in low-income and middle-income countries: an umbrella review. *The Lancet Psychiatry*, 7(2), 162-172. [https://doi.org/10.1016/S2215-0366\(19\)30511-5](https://doi.org/10.1016/S2215-0366(19)30511-5)
- Baumer, Y., Farmer, N., Premeaux, T. A., Wallen, G. R., & Powell-Wiley, T. M. (2020). Health disparities in COVID-19: Addressing the role of social determinants of health in immune system dysfunction to turn the tide. *Frontiers in Public Health*, 8, 589.
- Beaglehole, B., Mulder, R. T., Frampton, C. M., Boden, J. M., Newton-Howes, G., & Bell, C. J. (2018). Psychological distress and psychiatric disorder after natural disasters: systematic review and meta-analysis. *The British Journal of Psychiatry*, 213(6), 716-722.
- Bennett, K., Gualtieri, T., & Kazmierczyk, B. (2018). Undoing solitary urban design: A review of risk factors and mental health outcomes associated with living in social isolation. *Journal of Urban Design and Mental Health*, 1(4), 1-7.
- Bisson, J. I., Tavakoly, B., Witteveen, A. B., Ajdukovic, D., Jehel, L., Johansen, V. J., ... & Sezgin, A. U. (2010). TENTS guidelines: development of post-disaster psychosocial care guidelines through a Delphi process. *The British Journal of Psychiatry*, 196(1), 69-74.
- Blundell, R., Costa Dias, M., Joyce, R., & Xu, X. (2020). COVID-19 and Inequalities. *Fiscal Studies*, 41(2), 291-319.
- Bonanno, G.A., Brewin, C. R., Kaniasty, K. & La Greca, A. M. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest*, 11(1), 1–49. <https://doi.org/10.1177/1529100610387086>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet*.
- Brown, E. E., Kumar, S., Rajji, T. K., Pollock, B. G., & Mulsant, B. H. (2020). Anticipating and Mitigating the Impact of COVID-19 Pandemic on Alzheimer's Disease and Related Dementias. *The American Journal of Geriatric Psychiatry*. <https://doi.org/10.1016/j.jagp.2020.04.010>

- Browne, D. T., Plamondon, A., Prime, H., Puente-Duran, S., & Wade, M. (2015). Cumulative risk and developmental health: An argument for the importance of a family-wide science. *WIREs Cognitive Science*, 6, 397–407. <https://doi.org/10.1002/wcs.1349>
- Bryant R. A., Gibbs L., Gallagher H. C., Pattison P., Lusher D., MacDougall C., Harms L., Block K., Snowdon E., Sinnott V., Ireton G., Richardson J., Forbes D. (2018). Longitudinal Study of Changing Psychological Outcomes Following the Victorian Black Saturday Bushfires. *Australian and New Zealand Journal of Psychiatry*, 52 (6): 542-551, DOI: 10.1177/0004867417714337
- Bryant, R. A., Gibbs, L., Colin Gallagher, H., Pattison, P., Lusher, D., MacDougall, C., ... & O'Donnell, M. (2020). The dynamic course of psychological outcomes following the Victorian Black Saturday bushfires. *Australian & New Zealand Journal of Psychiatry*, 0004867420969815.
- Bu, F., Steptoe, A., & Fancourt, D. (2020). Who is lonely in lockdown? Cross-cohort analyses of predictors of loneliness before and during the COVID-19 pandemic. medRxiv.
- Calder, K., D'Aeth, L., Turner, S., Begg, A., Veer, E., Scott, J., & Fox, C. (2020). Evaluation of the All Right? Campaign's Facebook intervention post-disaster in Canterbury, New Zealand. *Health promotion international*, 35(1), 111-122.
- Campbell, A. M. (2020). An increasing risk of family violence during the Covid-19 pandemic: Strengthening community collaborations to save lives. *Forensic Science International: Reports*, 100089. <http://dx.doi.org/10.1016/j.fsr.2020.100089>
- Camilleri, P. J., Healy, C., Macdonald, E. M., Nicholls, S., Sykes, J., Winkworth, G., & Woodward, M. (2010). Recovery from bushfires: The experience of the 2003 Canberra bushfires three years after.
- Carfi, A., Bernabei, R., & Landi, F. Gemelli (2020). Against COVID-19 Post-Acute Care Study Group. Persistent Symptoms in Patients After Acute COVID-19, *JAMA*.
- Carra, K. A., & Curtin, M. (2017). Posttraumatic growth among Australian farming women after a flood. *Journal of loss and trauma*, 22(5), 453-463.
- Centers for Disease Control and Prevention CDC (2020). Preventing the spread of COVID-19 in retirement communities and independent living facilities. <https://www.cdc.gov/coronavirus/2019-ncov/community/retirement/guidance-retirement-response.html>
- Charlson, F., van Ommeren, M., Flaxman, A., Cornett, J., Whiteford, H., & Saxena, S. (2019). New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. *The Lancet*, 394(10194), 240-248. <http://dx.doi.org/10.1016/>
- Chen, R., Sun, C., Chen, J. J., Jen, H. J., Kang, X. L., Kao, C. C., & Chou, K. R. (2021). A Large-Scale Survey on Trauma, Burnout, and Posttraumatic Growth among Nurses during the COVID-19 Pandemic. *International journal of mental health nursing*, 30(1), 102-116.

- Chen, S., Li, F., Lin, C., Han, Y., Nie, X., Portnoy, R. N., & Qiao, Z. (2020). Challenges and recommendations for mental health providers during the COVID-19 pandemic: the experience of China's First University-based mental health team. *Globalization and health*, 16(1), 1-10. <https://doi.org/10.1186/s12992-020-00591-2>
- Chew, Q. H., Wei, K. C., Vasoo, S., Chua, H. C., & Sim, K. (2020). Narrative synthesis of psychological and coping responses towards emerging infectious disease outbreaks in the general population: practical considerations for the COVID-19 pandemic. *Tropical Journal of Pharmaceutical Research*, 61(7).
- Choi, K. R., Heilemann, M. V., Fauer, A., & Mead, M. (2020). A second pandemic: Mental health spill over from the novel coronavirus (COVID-19). *Journal of the American Psychiatric Nurses Association*, 1078390320919803.
- Clark, A., Jit, M., Warren-Gash, C., Guthrie, B., Wang, H. H., Mercer, S. W., ... & Checchi, F. (2020). Global, regional, and national estimates of the population at increased risk of severe COVID-19 due to underlying health conditions in 2020: a modelling study. *The Lancet Global Health*, 8(8), e1003-e1017.
- Conrad, R. C., Baum, M. L., Shah, S. B., Levy-Carrick, N. C., Biswas, J., Schmelzer, N. A., & Silbersweig, D. (2020). Duties toward Patients with Psychiatric Illness. *Hastings Center Report*, 50(3), 67-69. <https://doi.org/10.1002/hast.1139>
- Dean, D. J., Tso, I. F., Giersch, A., Lee, H.S., Baxter, T., Griffith, T., Song, L., Park, S. (2020) Cross-Cultural comparisons of psychosocial distress in the USA, South Korea, France, and Hong Kong during the initial phase of COVID-19, *Psychiatry Research* doi: <https://doi.org/10.1016/j.psychres.2020.113593>
- De Luca, R., & Calabrò, R. S. (2020). How the COVID-19 Pandemic is Changing Mental Health Disease Management: The Growing Need of Telecounseling in Italy. *Innovations in Clinical Neuroscience*, 17(4-6), 16.
- de Pablo, G. S., Serrano, J. V., Catalan, A., Arango, C., Moreno, C., Ferre, F., ... & Fusar-Poli, P. (2020). Impact of coronavirus syndromes on physical and mental health of health care workers: Systematic review and meta-analysis. *Journal of affective disorders*.
- Dhavale, P., Koparkar, A., & Fernandes, P. (2020). Palliative care interventions from a social work perspective and the challenges faced by patients and caregivers during COVID-19. *Indian Journal of Palliative Care*, 26(5), 58.
DOI: 10.4103/IJPC.IJPC_149_20
- Docherty, A. B., Harrison, E. M., Green, C. A., Hardwick, H. E., Pius, R., Norman, L., ... & Merson, L. (2020). Features of 20 133 UK patients in hospital with covid-19 using the ISARIC WHO Clinical Characterisation Protocol: prospective observational cohort study. *bmj*, 369. <http://dx.doi.org/10.1136/bmj.m1985>
- Dominey-Howes, D., Gorman-Murray, A., & McKinnon, S. (2014). Queering disasters: On the need to account for LGBTI experiences in natural disaster contexts. *Gender, Place & Culture*, 21(7), 905-918.
<https://doi.org/10.1080/0966369X.2013.802673>

- Dror, A. A., Eisenbach, N., Taiber, S., Morozov, N. G., Mizrachi, M., Zigran, A., ... & Sela, E. (2020). Vaccine hesitancy: the next challenge in the fight against COVID-19. *European journal of epidemiology*, 35(8), 775-779.
- Duan, L., Shao, X., Wang, Y., Huang, Y., Miao, J., Yang, X., & Zhu, G. (2020). An investigation of mental health status of children and adolescents in china during the outbreak of COVID-19. *Journal of affective disorders*, 275, 112-118.
- Dückers, M. L., & Thormar, S. B. (2015). Post-disaster psychosocial support and quality improvement: A conceptual framework for understanding and improving the quality of psychosocial support programs. *Nursing & Health Sciences*, 17(2), 159–165. <http://doi.org/10.1111/nhs.12162>
- Duckers M., Thormar S. B., Juen B., Ajdukovic D., Newlove-Eriksson L., Olf M. (2018) Measuring and modelling the quality of 40 post-disaster mental health and psychosocial support programmes. *PLoS ONE* 13(2): e0193285. <https://doi.org/10.1371/journal.pone.0193285>
- Dückers, M. L., Yzermans, C. J., Jong, W., & Boin, A. (2017). Psychosocial crisis management: the unexplored intersection of crisis leadership and psychosocial support. *Risk, Hazards & Crisis in Public Policy*, 8(2), 94-112. <https://doi.org/10.1002/rhc3.12113>
- Ellis, W. E., Dumas, T. M., & Forbes, L. M. (2020). Physically isolated but socially connected: Psychological adjustment and stress among adolescents during the initial COVID-19 crisis. *Canadian Journal of Behavioral Science/Revue Canadienne des sciences du Comportement*, 52(3), 177.
- Enarson, E. P. (2012). *Women confronting natural disaster: From vulnerability to resilience* (p. 245). Boulder, CO: Lynne Rienner Publishers.
- Espinosa, A., & Rudenstine, S. (2020). The contribution of financial well-being, social support, and trait emotional intelligence on psychological distress. *British Journal of Clinical Psychology*, 59(2), 224-240.
- Etkind, S. N., Bone, A. E., Lovell, N., Cripps, R. L., Harding, R., Higginson, I. J., & Sleeman, K. E. (2020). The role and response of palliative care and hospice services in epidemics and pandemics: a rapid review to inform practice during the COVID-19 pandemic. *Journal of Pain and Symptom Management*. <https://doi.org/10.1016/j.jpainsymman.2020.03.029>
- Every-Palmer, S., Jenkins, M., Gendall, P., Hoek, J., Beaglehole, B., Bell, C., ... & Stanley, J. (2020). Psychological distress, anxiety, family violence, suicidality, and wellbeing in New Zealand during the COVID-19 lockdown: A cross-sectional study. *PLoS one*, 15(11), e0241658. <https://doi.org/10.1371/journal.pone.0241658>
- Faleolo, R. L. (2019). 'Pasifika Diaspora in Auckland and Brisbane: Review of Literature'. *Life Course Centre Working Paper Series*, 2019-07. Institute for Social Science Research, The University of Queensland.
- Faleafa, M. (2020). Core Elements of Pacific Primary Mental Health and Addiction Service Provision. Auckland: Niu Mindworks Ltd

- Ferguson, N., Laydon, D., Nedjati-Gilani, G., Imai, N., Ainslie, K., Baguelin, M., ... & Dighe, A. (2020). Report 9: Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand. *Imperial College London*, 10, 77482.
- Fernandes, N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy. Available at SSRN 3557504.
- Finset, A., Bosworth, H., Butow, P., Gulbrandsen, P., Hulsman, R. L., Pieterse, A. H., ... & van Weert, J. (2020). Effective health communication—a key factor in fighting the COVID-19 pandemic. *Patient Education and Counselling*, 103(5), 873.
- Fisman, D. N., Bogoch, I., Lapointe-Shaw, L., McCready, J., & Tuite, A. R. (2020). Risk factors associated with mortality among residents with coronavirus disease 2019 (COVID-19) in long-term care facilities in Ontario, Canada. *JAMA network open*, 3(7), e2015957-e2015957.doi:10.1001/jamanetworkopen.2020.15957
- Fitzgerald, K. C., Pit, S. W., Rolfe, M., McKenzie, J., Matthews, V., Longman, J., & Bailie, R. (2020). Cross sectional analysis of depression amongst Australian rural business owners following cyclone-related flooding. *Journal of occupational medicine and toxicology*, 15, 1-15. <https://doi.org/10.1186/s12995-020-00264-1>
- Flaxman, S., Mishra, S., Gandy, A., Unwin, H. J. T., Mellan, T. A., Coupland, H., ... & Monod, M. (2020). Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe. *Nature*, 584(7820), 257-261.
- Fontanet, A., Autran, B., Lina, B., Kieny, M. P., Karim, S. S. A., & Sridhar, D. (2021). SARS-CoV-2 variants and ending the COVID-19 pandemic. *The Lancet*, 397(10278), 952-954.
- Fraenkel, P., & Cho, W. L. (2020). Reaching Up, Down, In, and Around: Couple and Family Coping During the Coronavirus Pandemic. *Family Process*.
- Franco-Paredes C, Jankousky K, Schultz J, Bernfeld J, Cullen K, Quan NG, et al. (2020) COVID-19 in jails and prisons: A neglected infection in a marginalized population. *PLoS Negl Trop Dis* 14(6) : e0008409. <https://doi.org/10.1371/journal.pntd.0008409>
- French, J., Deshpande, S., Evans, W., & Obregon, R. (2020). Key guidelines in developing a pre-emptive COVID-19 vaccination uptake promotion strategy. *International Journal of Environmental Research and Public Health*, 17(16), 5893.
- Fu, C., & Underwood, C. (2015) A meta-review of school-based disaster interventions for child and adolescent survivors, *Journal of Child & Adolescent Mental Health*, 27:3, 161-171, DOI: 10.2989/17280583.2015.1117978
- Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health: A multidisciplinary review. *Journal of Management*, 39(5), 1085–1122. <https://doi.org/10.1177/0149206313475815>
- Gelaye, B., Foster, S., Bhasin, M., Tawakol, A., Fricchione, G., (2020). SARSCoV-2 Morbidity and Mortality in Racial/Ethnic Minority Populations: A Window into the Stress Related Inflammatory Basis of Health Disparities, *Brain, Behavior, & Immunity - Health*, <https://doi.org/10.1016/j.bbih.2020.100158> Journal pre-proof.

- Ghuman, S. J., Brackbill, R. M., Stellman, S. D., Farfel, M. R., & Cone, J. E. (2014). Unmet mental health care need 10-11 years after the 9/11 terrorist attacks: results from 2011-2012 World Trade Center Health Registry. *BMC Public Health*, 14(1), 491. <http://doi.org/10.1186/1471-2458-14-491>
- Giannini, A. M., Piccardi, L., Cordellieri, P., Baralla, F., Sgalla, R., Guidoni, U., & Vedovi, S. (2016). Personality traits and coping strategies for contracting the occurrence of traumatic reactions in emergency rescuers. A multidimensional approach to post-traumatic stress disorder—from theory to practice. New York, NY: John Wiley and Sons, 147-66.
- Goggin, G., & Ellis, K. (2020) Disability, communication, and life itself in the COVID-19 pandemic, *Health Sociology Review*, 29:2, 168-176, DOI: 10.1080/14461242.2020.1784020
- Gonzalez-Sanguino, C., Ausin, B., Castellanos, M. A., Saiz, J., Lopez-Gomez, A., Ugidos, C., & Munoz, M. (2020). Mental health consequences during the initial stage of the 2020 coronavirus pandemic (COVID-19) in Spain. *Brain, Behavior, and Immunity*, 87, 172– 176.
- Greenhalgh, T., Wherton, J., Shaw, S., & Morrison, C. (2020). Video consultations for covid-19.
- Group of Eight GO8(2020). COVID-19 Roadmap to Recovery – A Report for the Nation from 8 of Australia’s leading universities. <https://go8.edu.au/research/roadmap-to-recovery>
- Hacimusalar Y., Kahve A. C., Yasar A. B., Aydin M. S. (2020). Effects of coronavirus disease 2019 (COVID-19) pandemic on anxiety and hopelessness levels: A cross-sectional study in healthcare workers and community sample in Turkey, *Journal of Psychiatric Research*, <https://doi.org/10.1016/j.jpsychires.2020.07.024>
- Hagger, M. S., Keech, J. J., & Hamilton, K. (2020). Managing stress during the coronavirus disease 2019 pandemic and beyond: Reappraisal and mindset approaches. *Stress and Health*, 36(3), 396-401.
- Hagström, E., Norlund, F., Stebbins, A., Armstrong, P. W., Chiswell, K., Granger, C. B., ... & Wallentin, L. (2018). Psychosocial stress and major cardiovascular events in patients with stable coronary heart disease. *Journal of internal medicine*, 283(1), 83-92.
- Haine-Schlagel, R., & Walsh, N. E. (2015). A review of parent participation engagement in child and family mental health treatment. *Clinical Child and Family Psychology Review*, 18, 133–150. <http://dx.doi.org/10.1007/s10567-015-0182-x>
- Halvorsen, E., Stamu-O'Brien, C., Carniciu, S., & Jafferany, M. (2020). Psychological Effects of COVID-19 on Parenting and Maternal-Fetal Mental Health. *Dermatologic Therapy*.
- Harkins, C. (2020). Supporting community recovery and resilience in response to the COVID-19 pandemic—a rapid review of evidence. *Glasgow Centre for Population Health*.

- Harms, L., Abotomey, R., Rose, D., Woodward Kron, R., Bolt, B., Waycott, J., & Alexander, M. (2018). Postdisaster posttraumatic growth: Positive transformations following the Black Saturday bushfires. *Australian Social Work*, 71(4), 417-429.
- Himes-Cornell, A., Ormond, C., Hoelting, K., Ban, N. C., Zachary Koehn, J., Allison, E. H., ... & Okey, T. A. (2018). Factors affecting disaster preparedness, response, and recovery using the community capitals framework. *Coastal Management*, 46(5), 335-358. <https://doi.org/10.1080/08920753.2018.1498709>
- Hobfoll, S. E., Watson, P., Bell, C. C., Bryant, R. A., Brymer, M. J., Friedman, M. J., ... & Maguen, S. (2007). Five essential elements of immediate and mid-term mass trauma intervention: Empirical evidence. *Psychiatry: Interpersonal and Biological Processes*, 70(4), 283-315.
- Hoffer, K., Martin, T., (2019) Prepare for recovery: Approaches for psychosocial response and recovery. *Journal of Business Continuity & Emergency Planning*, 13, (4), 340–351.
- Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: a meta-analytic review. *Perspectives on Psychological Science*, 10(2), 227-237. DOI: 10.1177/1745691614568352
- Holuka, C., Merz, M. P., Fernandes, S. B., Charalambous, E. G., Seal, S. V., Grova, N., & Turner, J. D. (2020). The COVID-19 Pandemic: Does Our Early Life Environment, Life Trajectory and Socioeconomic Status Determine Disease Susceptibility and Severity? *International Journal of Molecular Sciences*, 21(14), 5094. <https://doi.org/10.3390/ijms21145094>
- Horney, J. A., Karaye, I. M., Abuabara, A., Gearhart, S., Grabich, S., & Perez-Patron, M. (2020, October 9). The Impact of Natural Disasters on Suicide in the United States, 20 03–2015. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*. Advance online publication. <http://dx.doi.org/10.1027/0227-5910/a000723>
- Hyland, P., Shevlin, M., McBride, O., Murphy, J., Karatzias, T., Bentall, R. P., ... & Vallières, F. (2020). Anxiety and depression in the Republic of Ireland during the COVID-19 pandemic. *Acta Psychiatrica Scandinavica*. <https://doi.org/10.1111/acps.13219>
- IASC. 2007. IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings. Geneva (CH): Inter-Agency Standing Committee. [accessed 2016 Sep 01]. www.who.int/mental_health/emergencies/guidelines_iasc_mental_health_psychosocial_june_2007.pdf
- IASC (2020). IASC Guidance on Operational considerations for Multisectoral Mental Health and Psychosocial Support Programmes during the COVID-19 Pandemic <https://interagencystandingcommittee.org/iasc-reference-group-mental-health-and-psychosocial-support-emergency-settings/iasc-guidance>
- International Federation of Red Cross and Red Crescent Societies IFRC and Psychosocial Reference Centre (2009). Psychosocial Interventions: A handbook.

International Monetary Fund (IMF) October 2020.

<https://www.imf.org/en/Publications/WEO>

- Jacobs, J., Oosterbeek, M., Tummers, L. G., Noordegraaf, M., Yzermans, C. J., & Dückers, M. L. (2019). The organization of post-disaster psychosocial support in the Netherlands: A meta-synthesis. *European journal of psychotraumatology*, 10(1), 1544024. <https://doi.org/10.1080/20008198.2018.1544024>
- James, A., Plank, M. J., Binny, R. N., Hannah, K., Hendy, S. C., Lustig, A., & Steyn, N. (2020). A structured model for COVID-19 spread: modelling age and healthcare inequities. medRxiv.
- Javakhishvili, J. D., Ardino, V., Bragesjö, M., Kazlauskas, E., Olf, M., & Schäfer, I. (2020). Trauma-informed responses in addressing public mental health consequences of the COVID-19 pandemic: position paper of the European Society for Traumatic Stress Studies (ESTSS). *European journal of psychotraumatology*, 11(1), 1780782.
- Jelaca, M., Anastasovski, I., Velickocska, L. A. (2020). A report on the impacts of the coronavirus sars-cov-2 “shelter-in-place order” on fitness and well-being. *Physical Education, Sport and Health 2020*, Vol. 9, No. 1, pp.13-18 DOI: <https://doi.org/10.46733/PESH201318pg>
- Jiang, Y., Zilioli, S., Rodriguez-Stanley, J., Peek, K. M., & Cutchin, M. P. (2020). Socioeconomic status and differential psychological and immune responses to a human-caused disaster. *Brain, behavior, and immunity*.
- Kapilashrami, A., & Hankivsky, O. (2018). Intersectionality and why it matters to global health. *The Lancet*, 391(10140), 2589-2591.
- Karatzias, T., Shevlin, M., Murphy, J., McBride, O., Ben-Ezra, M., Bentall, R. P., ... & Hyland, P. (2020). Posttraumatic stress symptoms and associated comorbidity during the COVID-19 pandemic in Ireland: A population-based study. *Journal of traumatic stress*, 33(4), 365-370.
- Karyotaki, E., Ebert, D. D., Donkin, L., Riper, H., Twisk, J., Burger, S., ... & Geraedts, A. (2018). Do guided internet-based interventions result in clinically relevant changes for patients with depression? An individual participant data meta-analysis. *Clinical psychology review*, 63, 80-92. <https://doi.org/10.1016/j.cpr.2018.06.007>
- Katz, A. S., Hardy, B. J., Firestone, M., Lofters, A., & Morton-Ninomiya, M. E. (2019). Vagueness, power and public health: use of ‘vulnerable’ in public health literature. *Critical Public Health*, 1-11. <https://doi.org/10.1080/09581596.2019.1656800>
- Killerby, M. E., Link-Gelles, R., Haight, S. C., Schrodt, C. A., England, L., Gomes, D. J., ... & Blau, E. F. (2020). Characteristics associated with hospitalization among patients with COVID-19—Metropolitan Atlanta, Georgia, March–April 2020. *Morbidity and Mortality Weekly Report*, 69(25), 790. doi: 10.15585/mmwr.mm6925e1
- Kim, S., Kim, J. H., Park, Y., Kim, S., & Kim, C. Y. (2020). Gender Analysis of COVID-19 Outbreak in South Korea: A Common Challenge and Call for Action. *Health*

Education & Behavior, 1090198120931443.
<https://doi.org/10.1177/1090198120931443>

- Kinner, S. A., Young, J. T., Snow, K., Southalan, L., Lopez-Acuña, D., Ferreira-Borges, C., & O'Moore, É. (2020). Prisons and custodial settings are part of a comprehensive response to COVID-19. *The Lancet Public Health*, 5(4), e188-e189. doi.org/10.1016/S2468-2667(20)30058-X
- Kisely, S., Warren, N., McMahon, L., Dalais, C., Henry, I., Siskind, D., (2020). Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis. *British Medical Journal*, 369:m1642 <http://dx.doi.org/10.1136/bmj.m1642>
- Kobokovich, A. L., Hosangadi, D., & Rivers, C. (2020). Supporting Social Distancing for COVID-19 Mitigation Through Community-Based Volunteer Networks. *American Journal of Public Health* 10, 8.
- Kok, G., Peters, G. Y., Kessels, L. T. E., Ten Hoor, G. A., & Rutter, R. A. C. (2018). Ignoring theory and misinterpreting evidence: The false belief in fear appeals. *Health Psychology Review*, 12(2), 111–125.
<https://doi.org/10.1080/17437199.2017.1415767>
- König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, 1-15.
- Kunzler A.M., Stoffers-Winterling J., Stoll M., Mancini A. L., Lehmann S., Blessin M. (2021). Mental health and psychosocial support strategies in highly contagious emerging disease outbreaks of substantial public concern: A systematic scoping review. *PLoS ONE* 16(2): e0244748. <https://doi.org/10.1371/journal>.
- Lin, M., & Cheng, Y. (June, 2020). Policy Actions to Alleviate Psychosocial Impacts of COVID-19 Pandemic: Experiences from Taiwan. Letter to editor. Ming-Wei Lin: <https://orcid.org/0000-0001-9539-8071>
- Liu, S.; Yang, L.; Zhang, C.; Xiang, Y.T.; Liu, Z.; Hu, S.; Zhang, B. (2020). Online mental health services in China during the COVID-19 outbreak. *Lancet Psychiatry*, 7, e17–e18
- Livingston, E., Bucher, K., (2020) Coronavirus Disease 2019 (COVID-19) in Italy. *Journal of American Medical Association*, 323(14):1335. doi:10.1001/jama.2020.4344
- Lo, H. W. A., Shieh, I. (2019). Constructing community mental health and smart living strategies: After the Kaohsiung Das explosion disaster (2nd Global Summit for Mental Health Advocates, 2019 Prioritizing Mental Health Promotion). National Taiwan University.
- Long, N. J. (2020). From social distancing to social containment: reimagining sociality for the coronavirus pandemic. *Medicine Anthropology Theory*.

- Lorenzoni, V., Stühlinger N., Stummer H., & Raich M., (2020). Long-Term Impact of Disasters on the Public Health System: A Multi-Case Analysis. *Int. J. Environ. Res. Public Health*, 17, 6251; doi:10.3390/ijerph17176251
- Lu W, Wang H, Lin Y, Li L. (2020). Psychological status of medical workforce during the COVID-19 pandemic: a cross-sectional study. *Psychiatry Res* 288:112936 <https://doi.org/10.1016/j.psychres.2020.112936>
- McBeath, A. G., du Plock, S., & Bager-Charleson, S. (2020). The challenges and experiences of psychotherapists working remotely during the coronavirus* pandemic. *Counselling and Psychotherapy Research*, 20(3), 394-405. <https://doi.org/10.1002/capr.12326>
- MacDonald, C., Mooney, M., Johnston, D., Becker, J. Blake, D., Mitchell, J., Malinen, S., Näswall, K. (in prep 2020). Supporting community recovery: COVID-19 and beyond. Disaster Research Science Report; 2021/02, Wellington (NZ): Massey University
- MacDonell, K. W., & Prinz, R. J. (2017). A review of technology-based youth and family-focused interventions. *Clinical Child and Family Psychology Review*, 20, 185–200. <http://dx.doi.org/10.1007/s10567-0160218-x>
- McFarlane, A. C., & Williams, R. (2012). Mental health services required after disasters: Learning from the lasting effects of disasters. *Depression research and treatment*.
- McGuire, D., Cunningham, J. E., Reynolds, K., & Matthews-Smith, G. (2020). Beating the virus: an examination of the crisis communication approach taken by New Zealand Prime Minister Jacinda Ardern during the Covid-19 pandemic. *Human Resource Development International*, 23(4), 361-379.
- McMeeking, S., Leahy, H., & Savage, C. (2020). An Indigenous self-determination social movement response to COVID-19. *AlterNative: An International Journal of Indigenous Peoples*, 16(4), 395-398.
- McMeeking, S., SAVAGE, C. (2020). Māori Responses to Covid-19. *Policy Quarterly*, [S.I.], v. 16, n. 3, aug. 2020. ISSN 2324-1101. Available at: <<https://ojs.victoria.ac.nz/pg/article/view/6553>. doi: <https://doi.org/10.26686/pq.v16i3.6553>
- Maben J., & Bridges, J. (2020). Covid-19: Supporting nurses' psychological and mental health. *Journal of clinical nursing*. <https://doi.org/10.1111/jocn.15307>
- Mahase, M. (2020). Editorial: What do we know about “long covid”? *British Medical Journal*, 370:m2815 <http://dx.doi.org/10.1136/bmj.m2815>
- Makaroun, L. K., Bachrach, R. L., & Rosland, A. M. (2020). Elder Abuse in the Time of COVID-19—Increased Risks for Older Adults and Their Caregivers. *The American Journal of Geriatric Psychiatry*, 28(8), 876-880. <https://doi.org/10.1016/j.jagp.2020.05.017>
- Making Disability Rights Real in a Pandemic, Te Whakatinana i ngā Tika Hauātanga I te wā o te Urutā. (January 2021) Ombudsman report: ISBN: 978-0-473-55899-4 (Print) 978-0-473-55900-7 (PDF)

- Malenin, S. Won, J., & Naswall, K., Effective workplace strategies to support employee wellbeing during a pandemic. (in press)
- Mallet, J., Dubertret, C., & Le Strat, Y. (2020). Addictions in the COVID-19 era: Current evidence, future perspectives a comprehensive review. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 110070. (In press).
<https://doi.org/10.1016/>
- Marazziti, D., Pozza, A., Di Giuseppe, M., & Conversano, C. (2020). The psychosocial impact of COVID-19 pandemic in Italy: A lesson for mental health prevention in the first severely hit European country. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(5), 531-533. <http://dx.doi.org/10.1037/tra0000687>
- Marchini, S., Zaurino, E., Bouziotis, J., Brondino, N., Delvenne, V., & Delhaye, M. (2021). Study of resilience and loneliness in youth (18–25 years old) during the COVID-19 pandemic lockdown measures. *Journal of community psychology*, 49(2), 468-480.
- Marmot, M. (2020). Society and the slow burn of inequality. *The Lancet*, 395, 1413–1414.
- Marmot, M., Allen, J., Boyce, T., Goldblatt, P., & Morrison, J. (2020). Health Equity in England: The Marmot Review Ten Years On. *Institute of Health Equity*.
- Marmot, M., & Bell, R. (2019). Social determinants and non-communicable diseases: time for integrated action. *Bmj*, 364.
- Masten, A. S., Narayan, A. J., Silverman, W. K., & Osofsky, J. D. (2015). Children in war and disaster. *Handbook of child psychology and developmental science*, 1-42.
- Ministry of Health (2018) 'Ngā mana hauora tūtohu: health status indicators',
<https://www.health.govt.nz/our-work/populations/maori-health/tatau-kahukura-maori-health-statistics/nga-mana-hauoratutohu-health-status-indicators>
- Ministry of Health, 2020a. Kia Kaha, Kia Māia, Kia Ora Aotearoa: COVID-19 Psychosocial and Mental Wellbeing Recovery Plan. Wellington: Ministry of Health.
- Ministry of Health. 2020b. COVID-19 Health and Disability System Response Plan.
<https://www.health.govt.nz/system/files/documents/publications/covid-19-health-and-disability-system-response-plan-19april2020.pdf>
- Misra, S., Le, P. D., Goldmann, E., & Yang, L. H. (2020). Psychological impact of anti-Asian stigma due to the COVID-19 pandemic: A call for research, practice, and policy responses. *Psychological Trauma: Theory, Research, Practice, and Policy*.
- Molyneaux, R., Gibbs, L., Bryant, R. A., Humphreys, C., Hegarty, K., Kellett, C., ... & Alkemade, N. (2020). Interpersonal violence and mental health outcomes following disaster. *BJPsych open*, 6(1). doi: 10.1192/bjo.2019.82
- Mooney, M., Tarrant, R., Paton, D., Johal, S., & Johnston, D. (2017). Getting through: Children's effective coping and adaptation in the context of the Canterbury, New Zealand, Earthquakes of 2010-2012. *Australasian Journal of Disaster and Trauma Studies*, 21(1), 19.

- Mooney, M., Tarrant, R., Paton, D., Johnston, D., & Johal, S. (2020). The school community contributes to how children cope effectively with a disaster. *Pastoral Care in Education*, 1-24. <https://doi.org/10.1080/02643944.2020.1774632>
- Morgan, J., Begg, A., Beaven, S., Schluter, P., Jamieson, K., Johal, S., Johnston, D. & Sparrow, M. (2015). Monitoring wellbeing during recovery from the 2010–2011 Canterbury earthquakes: the CERA Wellbeing Survey. *International Journal of Disaster Risk Reduction*, 14, 96-103. <http://dx.doi.org/10.1016/j.ijdrr.2015.01.012i>
- Morris, S. E., Moment, A., & Thomas, J. D. (2020). Caring for bereaved family members during the COVID-19 pandemic: before and after the death of a patient. *Journal of Pain and Symptom Management*. <https://doi.org/10.1016/j.jpainsymman.2020.05.0>
- Morrow-Howell, N., Galucia, N., & Swinford, E. (2020) Recovering from the COVID-19 Pandemic: A Focus on Older Adults, *Journal of Aging & Social Policy*, 32:4-5, 526-535, DOI: 10.1080/08959420.2020.1759758
- Mounsey Z, MacDonald C, Johal S. (2017). Psychosocial support in emergencies: An evidence summary. Lower Hutt (NZ): GNS Science. 30 p. (*GNS Science report*; 2017/39). doi:10.21420/G2ZH1B.
- Mutch, C. (2018). The role of schools in helping communities cope with earthquake disasters: The case of the 2010–2011 New Zealand earthquakes. *Environmental Hazards*, 17(4), 331–351. <https://doi.org/10.1080/17477891.2018.1485547>
- Myrick, J. G. (2017). Celebrity-based appeals in health and risk messaging. In R. Parrott (Ed.), *Oxford research encyclopaedia of communication*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190228613.013.659>
- National Center for Health Statistics (2020). Mental health: household pulse survey. <https://www.cdc.gov/nchs/covid19/pulse/mental-health.html>. Accessed 28 July 2020
- Neilson, M. (2020). Covid 19 coronavirus: Recovered Covid-19 New Zealanders experience stigma. *NZ Herald*, 5 June. <https://www.nzherald.co.nz/nz/covid-19-coronavirus-recovered-covid-19-new-zealanders-experience-stigma/7YITSXXGRQVGIZJGMZEKEJWWQY/>
- Nelson PA, Adams SM, (2020) Primary Cares' Role in Suicide Prevention during the COVID-19 Pandemic, *The Journal for Nurse Practitioners*, doi: <https://doi.org/10.1016/>
- Newby JM, O'Moore K, Tang S, Christensen H, Faasse K (2020) Acute mental health responses during the COVID-19 pandemic in Australia. *PLoS ONE* 15(7):e0236562. <https://doi.org/10.1371/journal.pone.0236562>
- O'Connor, D. B., Aggleton, J. P., Chakrabarti, B., Cooper, C. L., Creswell, C., Dunsmuir, S., ... & Jones, M. V. (2020). Research priorities for the COVID-19 pandemic and beyond: A call to action for psychological science. *British Journal of Psychology*, e12468.
- O'Neil, A., Nicholls, S. J., Redfern, J., Brown, A., & Hare, D. L. (2020). Mental Health and Psychosocial Challenges in the COVID-19 Pandemic: Food for Thought for Cardiovascular Health Care Professionals. *Heart, Lung and Circulation*. <https://doi.org/10.1016/j.hlc.2020.05.002>

- O'Sullivan, T. L., & Phillips, K. P., (2019). From SARS to pandemic influenza: the framing of high-risk populations. *Natural Hazards* 98:103–117
<https://doi.org/10.1007/s11069-019-03584-6>
- Okruszek, L., Aniszewska-Stańczuk, A., Piejka, A., Wiśniewska, M., Żurek, K., 2020. Safe but lonely? Loneliness Mental Health Symptoms COVID-19.
<https://osf.io/ec3mb/>
- ONS Office of National Statistics (2019). Exploring the UK's digital divide. Retrieved from <https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04>
- Olf, M., Amstadter, A., Armour, C., Birkeland, M. S., Bui, E., Cloitre, M., ... & Lanius, R. (2019). A decennial review of psychotraumatology: what did we learn and where are we going? *European journal of psychotraumatology*, 10(1), 1672948.
<https://doi.org/10.1080/20008198.2019.1672948>
- Osofsky, J. D., Osofsky, H. J., & Mamon, L. Y. (2020). Psychological and social impact of COVID-19. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(5), 468.
- Osofsky, J. D., Osofsky, H. J., Weems, C. F., King, L., & Hansel, T. C. (2015). Trajectories of posttraumatic stress disorder symptoms among youth exposed to both natural and technological disasters. *Journal of Child Psychiatry and Psychology*, 56, 1347–1355; <http://dx.doi.org/10.1111/jcpp.12420>
- Osofsky, H. J., Weems, C. F., Graham, R. A., Osofsky, J. D., Hansel, T. C., & King, L. S. (2019). Perceptions of resilience and physical health symptom improvement following post disaster integrated health services. *Disaster Medicine and Public Health Preparedness*, 13(2), 223-229. DOI:10.1017/dmp.2018.35
- Park, O., Park, Y. J., Park, S. Y., Kim, Y. M., Kim, J., Lee, J., ... & Ko, D. (2020). Contact transmission of Covid-19 in South Korea: Novel investigation techniques for tracing contacts. *Osong Public Health and Research Perspectives*, (1).
- Parker, G., Lie, D., Siskind, D. J., Martin-Khan, M., Raphael, B., Crompton, D., & Kisely, S. (2016). Mental health implications for older adults after natural disasters—a systematic review and meta-analysis. *International Psychogeriatrics*, 28(1), 11-20. doi:10.1017/S1041610215001210
- Parkinson, D., & Zara, C. (2013). The hidden disaster: Domestic violence in the aftermath of natural disaster. *Australian Journal of Emergency Management, The*, 28(2), 28.
- Paton, D. (2013). Disaster Resilient Communities: Developing and testing an all-hazards theory. *Journal of Integrated Disaster Risk Management*, 3, 1–17. doi:10.5595/idrim.2013.0050
- Paton, D., Buergelt, P.T., Her, R-S., Jang, L-j., Lai, R-L., Lee, E., Leishman, V., Liu, C-W., Tseng, Y-L. & Wu, R-S. (in press 2020) Socio-cultural capacities and capabilities: Facilitating community response, recovery, regeneration and capacity

- building. In McGee, T. and E. Penning-Rowsell (Eds), *Handbook of Environmental Hazards and Society*. London: Routledge .
- Pedrós Barnils, N., Eurenus, E., & Gustafsson, P. E. (2020). Self-rated health inequalities in the intersection of gender, social class and regional development in Spain: exploring contributions of material and psychosocial factors. *International Journal for Equity in Health*, 19, 1-14.
- Peterman, A., Potts, A., O'Donnell, M. et al. (2020). *Pandemics and Violence Against Women and Children. Center for Global Development Working Paper 528*. Washington DC: Centre for Global Development.
<https://www.cgdev.org/publication/pandemics-and-violence-aga-women-and-children>
- Person, B., Sy, F., Holton, K., Govert, B., & Liang, A. (2004). Fear and stigma: the epidemic within the SARS outbreak. *Emerging infectious diseases*, 10(2), 358. doi: [10.3201/eid1002.030750](https://doi.org/10.3201/eid1002.030750)
- Pfefferbaum, B., & North, C. S. (2020). Perspective: Mental health and the Covid-19 pandemic. *The New England Journal of Medicine*. Advance online publication. <http://dx.doi.org/10.1056/NEJMp2008017>
- Piccardi, L., Palmiero, M., Nori, R., Baralla, F., Cordellieri, P., D'Amico, S., & Giannini, A. M. (2017). Persistence of traumatic symptoms after seven years: evidence from young individuals exposed to the L'Aquila earthquake. *Journal of loss and trauma*, 22(6), 487-500. <https://doi.org/10.1080/15325024.2017.1328243>
- Poulton, R., Gluckman, P., Menzies, R., Bardsley, A., McIntosh, T., Faleafa, M., (June 2020). Protecting and Promoting Mental Wellbeing: Beyond, COVID-19. *2Koi Tū: The Centre for Informed Futures*.
- Prime, H., Wade, M., & Browne, D. T. (2020, May 21). Risk and Resilience in Family Well-Being During the COVID-19 Pandemic. *American Psychologist*. Advance online publication. <http://dx.doi.org/10.1037/amp0000660>
- Psychologists for Social Change (2017). *Universal basic income: A psychological impact assessment*. London, UK: PAA
- Quinn P, Gibbs L, Blake D, Campbell E, Johnston D, Ireton G. Guide to Post-Disaster Recovery Capitals (ReCap) (2020). Melbourne, Australia: Bushfire Natural Hazards Cooperative Research Centre; June 2020. Retrieved from <https://www.redcross.org.au/recap>
- Reagu S, Wadoo O, Latoo J, et al. (2021). Psychological impact of the COVID-19 pandemic within institutional quarantine and isolation centres and its sociodemographic correlates in Qatar: a crosssectional study. *BMJ Open*;11: e045794. doi:10.1136/ bmjopen-2020-045794
- Reger, M. A., Stanley, I. H., Joiner, T.E., Suicide Mortality and Coronavirus Disease 2019—A Perfect Storm? *JAMA Psychiatry*. Published online April 10, 2020. doi:10.1001/jamapsychiatry.2020.1060

- Reynolds, L. (2020). The COVID-19 Pandemic Exposes Limited Understanding of Ageism. *Journal of Aging & Social Policy*, 1-7.
<https://doi.org/10.1080/08959420.2020.1772003>
- Riehm, K. E., Brenneke, S. G., Adams, L. B., Gilan, D., Lieb, K., Kunzler, A. M., ... & Thrul, J. (2021). Association between psychological resilience and changes in mental distress during the COVID-19 pandemic. *Journal of Affective Disorders*, 282, 381-385.
- Righy, C., Rosa, R. G., da Silva, R. T. A., Kochhann, R., Migliavaca, C. B., Robinson, C. C., ... & Falavigna, M. (2019). Prevalence of post-traumatic stress disorder symptoms in adult critical care survivors: a systematic review and meta-analysis. *Critical Care*, 23(1), 213.
- Salari, N., Hosseini-Far, A., Jalali, R. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. *Global Health* 16, 57 (2020). <https://doi.org/10.1186/s12992-020-00589-w>
- Saltzman, L. Y., Hansel, T. C., & Bordnick, P. S. (2020). Loneliness, isolation, and social support factors in post-COVID-19 mental health. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12 (S1), S55–S57.
<http://dx.doi.org/10.1037/tra0000703>
- Sanderson, W. C., Arunagiri, V., Funk, A. P., Ginsburg, K. L., Krychiw, J. K., Limowski, A. R., ... & Stout, Z. (2020). The nature and treatment of pandemic-related psychological distress. *Journal of contemporary psychotherapy*, 50(4), 251-263.
- Savage, C., Goldsmith, L., Standring, K., Quinn, S., Selwyn, S., Kus-Harbord, L., and Hynds, A. (2020) Manaaki 20; Inform, Prepare, Uplift. Research into the COVID-19 Response Plan for Te Pūtahitanga o Te Waipounamu. *Ihi Research*.
- Savage, C., Hynds, A., Leonard, J., Dallas-Katoa, W., Goldsmith, L., & Kuntz, J. (2018). All Right? An investigation into Māori Resilience.
- Schirmer, C. M., Ringer, A. J., Arthur, A. S., Binning, M. J., Fox, W. C., James, R. F., ... & Spiotta, A. M. (2020). Delayed presentation of acute ischemic strokes during the COVID-19 crisis. *Journal of NeuroInterventional Surgery*, 12(7), 639-642.
<http://dx.doi.org/10.1136/neurintsurg-2020-016299>
- Seale, H., Heywood, A. E., Leask, J., Steel, M., Thomas, S., Durrheim, D. N., ... & Kaur, R. (2020). COVID-19 is rapidly changing: Examining public perceptions and behaviors in response to this evolving pandemic. *medRxiv*.
<https://doi.org/10.1101/2020.05.04.20091298>
- Sety, M., (2012). University of New South Wales. Domestic Violence and Natural Disasters. Australian Domestic and Family Violence Clearinghouse.
- Settersten Jr, R. A., Bernardi, L., Härkönen, J., Antonucci, T. C., Dykstra, P. A., Heckhausen, J., ... & Mulder, C. H. (2020). Understanding the effects of Covid-19 through a life course lens. <https://doi.org/10.1016/j.alcr.2020.100360>
- Shakespeare-Finch, J., Obst, P., & Rogers, E. (2019). The Influence of Giving and Receiving Social Support on the Psychological Outcomes of Two Trauma-Exposed

Samples. *Journal of Loss and Trauma*, 24(8), 766-781.
<https://doi.org/10.1080/15325024.2019.1652407>

- Shanafelt, T., Ripp, J., and Trockel, M. (2020). Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 pandemic. *JAMA*. Available online at: <https://jamanetwork.com/journals/jama/article-abstract/2764380>(accessed April 23, 2020).
- Shanahan, L., Steinhoff, A., Bechtiger, L., Murray, A. L., Nivette, A., Hepp, U., Ribeaud, D., Eisner, M. (2020). Emotional distress in young adults during the COVID-19 pandemic: evidence of risk and resilience from a longitudinal cohort study. *Psychological Medicine* 1–10. <https://doi.org/10.1017/S003329172000241X>
- Shevlin, M., McBride, O., Murphy, J., Miller, J. G., Hartman, T. K., Levita, L., ... & Bennett, K. M. (2020). Anxiety, Depression, Traumatic Stress, and COVID-19 Related Anxiety in the UK General Population During the COVID-19 Pandemic. Working draft not peer reviewed.
- Shreffler, J., Petrey, J., & Huecker, M. (2020). The Impact of COVID-19 on Healthcare Worker Wellness: A Scoping Review. *Western Journal of Emergency Medicine*, 21(5), 1059.
- Sijbrandij, M., Horn, R., Esliker, R., O'May, F., Reiffers, R., Ruttenberg, L., ... & Ager, A. (2020). The effect of psychological first aid training on knowledge and understanding about psychosocial support principles: A cluster-randomized controlled trial. *International journal of environmental research and public health*, 17(2), 484. <https://doi:10.3390/ijerph17020484>
- Simpson, R., & Robinson, L. (2020). Rehabilitation After Critical Illness in People With COVID-19 Infection. *American journal of physical medicine & rehabilitation*, 99(6), 470.
- Soklaridis, S., Lin, E., Lalani, Y., Rodak, T., & Sockalingam, S. (2020). Mental health interventions and supports during COVID-19 and other medical pandemics: A rapid systematic review of the evidence. *General Hospital Psychiatry*. <https://doi.org/10.1016/j.genhosppsych.2020.08.007>
- Solomou, I., & Constantinidou, F. (2020). Prevalence and predictors of anxiety and depression symptoms during the CoViD-19 pandemic and compliance with precautionary measures: age and sex matter. *International journal of environmental research and public health*, 17(14), 4924. <https://doi.org/10.3390/ijerph17144924>
- Sotgiu, G., Dobler, C. C. (2020) Social stigma in the time of coronavirus disease 2019. *Journal of European Respiration* ; 56: 2002461 [https://doi.org/10.1183/13993003.02461-2020].
- Statistics, N. Z., & AOTEAROA, T. (2006). QuickStats about culture and identity. Wellington: Statistics New Zealand.
- Stolow J. A., Moses, L. M., Lederer, A. M., (2020). How Fear Appeal Approaches in COVID-19 Health Communication May Be Harming the Global Community. *Health*,

Education and Behavior, 47 (4), 531-535.

<https://doi.org/10.1177/1090198120935073>

Storz, M. A. (2020). The COVID-19 pandemic: an unprecedented tragedy in the battle against childhood obesity. *Clinical and Experimental Pediatrics*, 63(12), 477.

Stuijtzand, S., Deforges, C., Sandoz, V., Sajin, C. T. C. T., Jaques, C., Elmers, J., & Horsch, A. (2020). Psychological Impact of an Epidemic/Pandemic on the Mental Health of Healthcare Professionals: A Rapid Review.

<https://doi.org/10.1186/s12889-020-09322-z>

Sturmberg, J. P., & Martin, C. M. (2020). COVID-19—how a pandemic reveals that everything is connected to everything else. *Journal of Evaluation in Clinical Practice*. DOI: 10.1111/jep.13419

Sun, Y., Li, Y., Bao, Y., Meng, S., Sun, Y., Schumann, G., ... & Shi, J. (2020). Brief Report: Increased Addictive Internet and Substance Use Behaviour During the COVID-19 Pandemic in China. *The American Journal on Addictions*.

<https://doi.org/10.1111/ajad.13066>

Tanaka E, Tennichi H, Kameoka S, et al. (2019) Longterm psychological recovery process and its associated factors among survivors of the Great Hanshin-Awaji Earthquake in Japan: a qualitative study. *BMJ Open*, 9: e030250. doi:10.1136/bmjopen-2019-030250

Tassell-Matamua, N. A., Lindsay, N., Moriarty, T. R., & Haami, D. (in press). Indigenous Māori notions of spirit and spirituality as enablers of resilience and flourishing in Aotearoa New Zealand. In H. Weaver (Ed.), *Routledge handbook on Indigenous resilience*.

Tomlin, J., Dalgleish-Warburton, B., & Lamph, G. (2020). Psychosocial support for healthcare workers during the COVID-19 pandemic. *Frontiers in Psychology*, 11, 1960. doi: 10.3389/fpsyg.2020.01960

Townshend I, Awosoga O, Kulig J, Fan H. Social cohesion and resilience across communities that have experienced a disaster. *Nat Hazards*. 2015;76(2):913–38.

Ulubaşoğlu, M. A., Rahman, M. H., Önder, Y. K., Chen, Y., & Rajabifard, A. (2019). Floods, bushfires and sectoral economic output in Australia, 1978–2014. *Economic record*, 95(308), 58-80. <https://doi.org/10.1111/1475-4932.12446>

UN Women. (2020, April 6). *Violence against women and girls: The shadow pandemic*. <https://www.unwomen.org/en/news/stories/2020/4/statement-ed-phumzile-violence-against-women-during-pandemic>

Vanier Institute of the Family. (2020). Families struggle to cope with financial impacts of the COVID-19 pandemic. Retrieved April 18, 2020, from <https://vanierinstitute.ca/families-struggle-to-cope-with-financialimpacts-of-the-covid-19-pandemic/>

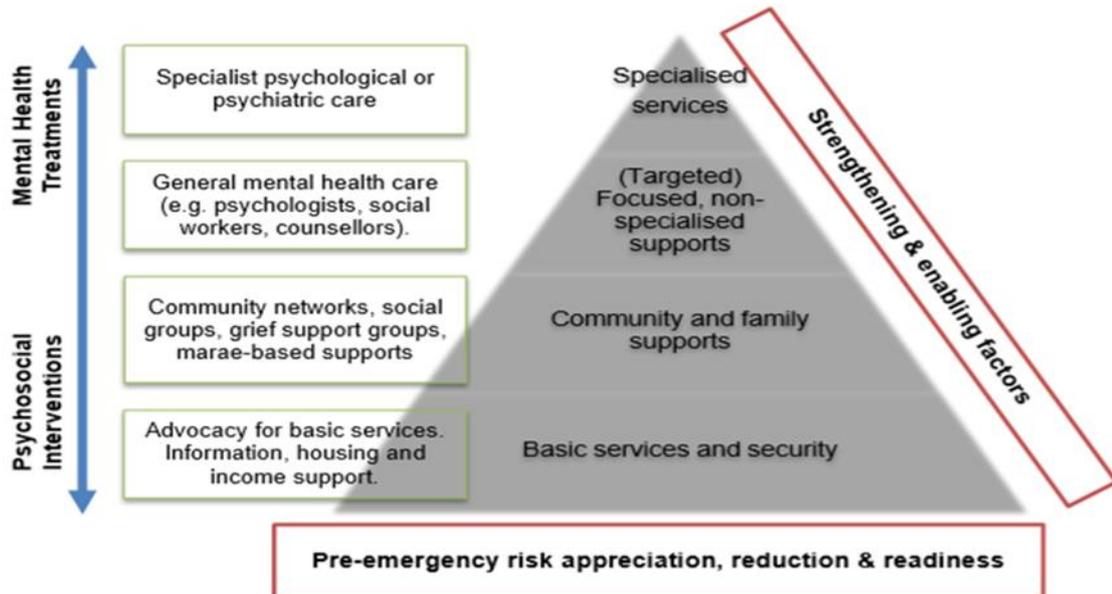
Van Bortel, T., Basnayake, A., Wurie, F., Jambai, M., Koroma, A. S., Muana, A. T., ... & Nellums, L. B. (2016). Psychosocial effects of an Ebola outbreak at individual, community and international levels. *Bulletin of the World Health Organization*, 94(3), 210.

- Verger, N. B., Urbanowicz, A., Shankland, R., & McAloney-Kocaman, K. (2021). Coping in isolation: predictors of individual and household risks and resilience against the COVID-19 pandemic. *Social Sciences & Humanities Open*, 3(1), 100123.
- Wald, H.S. (2020) Optimizing resilience and wellbeing for healthcare professions trainees and healthcare professionals during public health crises – Practical tips for an ‘integrative resilience’ approach, *Medical Teacher*, 42:7, 744-755, DOI: 10.1080/0142159X.2020.1768230
- Walker, B., Malinen, S., Näswall, K., Nilakant, V., & Kuntz, J. (2020). Organizational resilience in action: a study of a large-scale extended-disaster setting. In *Research Handbook on Organizational Resilience*. Edward Elgar Publishing.
- Wallace, C. L., Wladkowski, S. P., Gibson, A., & White, P. (2020). Grief during the COVID-19 pandemic: considerations for palliative care providers. *Journal of Pain and Symptom Management*.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International journal of environmental research and public health*, 17(5), 1729. doi: 10.3390/ijerph17051729
- Wang, Z., & Tang, K. (2020). Combating COVID-19: health equity matters. *Nature Medicine*, 26(4), 458-458. <https://doi.org/10.1038/s41591-020-0823-6>
- Webb Hooper, M., Nápoles, A. M., Pérez-Stable, E. J. (2020) COVID-19 and racial/ethnic disparities. *JAMA June 23/30*, 323, 24. doi:10.1001/jama.2020.8598
- Weems CF, Graham RA. (2014). Resilience and trajectories of posttraumatic stress among youth exposed to disaster. *J Child Adolescent Psychopharmacology*, 2014; 24: 2–8.
- Wessells, M. G. (2009). Do no harm: Toward contextually appropriate psychosocial support in international emergencies. *American Psychologist*, 64(8), 842-854. doi:10.1037/0003-066X.64.8.842
- Wilson, N., Barnard, L. T., Summers, J. A., Shanks, G. D., & Baker, M. G. (2012). Differential mortality rates by ethnicity in 3 influenza pandemics over a century, New Zealand. *Emerging Infectious Diseases*, 18(1), 71–77.
- Williamson, E., Walker, A. J., Bhaskaran, K., Bacon, S., Bates, C., Morton, C. E., ... Goldacre, B. (2020). OpenSAFELY: Factors associated with COVID-19 death in 17 million patients. *Nature*. <https://doi.org/10.1038/s41586-020-2521-4>
- World Health Organization. (2013). Mental health action plan 2013-2020.
- WHO (2020a). Coronavirus Disease (COVID-19) Dashboard. Statistics update. June 2020
- WHO (2020b) The impact of COVID-19 on mental, neurological and substance use services: results of a rapid assessment. Geneva: World Health Organization; 2020. Licence: CC BY-NC-SA 3.0 IGO.

- WHO (2020c) Clinical Management of COVID-19. WHO/2019-nCoV/clinical/2020.5
<https://www.who.int/publications/i/item/clinical-management-of-covid-19>
- Wordsworth, R. Hall, C. M., Prayag, G., & Malinen, S. (Forthcoming). Critical Perspectives on Disaster and Crisis Research: Revealing and Responding to Vulnerability. *Research Methodology in Strategy and Management*, Emerald.
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., Ng, C.H., (2020). Timely mental health care for the 2019 novel Coronavirus outbreak is urgently needed. *Lancet Psychiatry*, 7,228–229.[https://doi.org/10.1016/S2215-0366\(20\)30046-8](https://doi.org/10.1016/S2215-0366(20)30046-8).
- Xin, M., Luo, S., She, R., Yu, Y., Li, L., Wang, S., ... & Li, L. (2020). Negative cognitive and psychological correlates of mandatory quarantine during the initial COVID-19 outbreak in China. *American Psychologist*, 75(5), 607.
<http://dx.doi.org/10.1037/amp0000692>
- Yu, S. Y., & Hung, H. F. (2020). Let's Build a New Normal: Transitioning in Hope. *Journal of Gerontological Nursing*, 46(10), 3-5.
- Zara C, Parkinson D, Duncan A and Joyce K (2015), Men and disaster: men's experiences of the Black Saturday bushfires and the aftermath, *Australian Journal of Emergency Management (AJEM)* Vol. 31 Issue 3,
<https://knowledge.aidr.org.au/resources/ajemjul-2016-men-and-disaster-mens-experiences-of-the-black-saturday-bushfires-and-the-aftermath/>
- Zhou, X., Snoswell, C. L., Harding, L. E., Bambling, M., Edirippulige, S., Bai, X., & Smith, A. C. (2020). The role of telehealth in reducing the mental health burden from COVID-19. *Telemedicine and e-Health*, 26(4), 377-379.
<https://doi.org/10.1089/tmj.2020.0068>

APPENDIX 1: STEPPED-CARE MODEL TO MHPSS INTERVENTIONS

Figure 2: Tiered model of psychosocial interventions and mental health treatments



Source: Adapted from IASC (2007)

More information on the stepped-care model

www.who.int/mental_health/emergencies/guidelines_iasc_mental_health_psychosocial_june_2007.pdf