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COVID-19 AND MENTAL HEALTH

MENTAL HEALTH AND SUICIDE PREVENTION IN SOUTH AUSTRALIA AS WE ENTER THE NEXT STAGE OF PANDEMIC [10-01-2022]

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COVID-19 and Mental Health: Mental health and suicide prevention in South Australia as we enter the next stage of pandemic

Since April 2020 the South Australian government has funded a range of community, health and workforce initiatives and interventions designed to meet the immediate pandemic related mental health and wellbeing needs of the community.[1] There are a range of scenarios that could potentially unfold in South Australia over the coming 12-24 months, with the most likely scenario being rapidly changing public health measures as the full biological and epidemiological impacts of the virus unfold.

The needs of individuals with effective biopsychosocial protective factors will differ from people with substantial social, economic and health disadvantage and risk factors. Nationally and locally, there are significant concerns for young people and those facing inequalities of health care because of discrimination, poverty, or mental illness. Personalised responses must be balanced with responses at scale. No two individuals have the same developmental histories, life trajectories, risk factors, or current situational stressors. Compassionate and timely approaches by government and non-government sectors across all portfolio areas are essential. This paper reviews national and international evidence and considers recommendations for future directions specific to COVID-19 mental health and suicide prevention in the context of evidence, as presented in Table 1.

It should be noted that the mental health impacts of the COVID-19 pandemic are dynamic, broad, and influenced by constantly emerging evidence examining the impacts on the general population and groups of concern. Particularly, this is relevant within the context of a new variant of concern (VoC). In late November 2021, about 23 months since the first reported case of COVID-19 and after a global estimated 260 million cases and 5.2 million deaths, a new SARS-CoV-2 VoC, Omicron, was reported.[2] A recent report from the Imperial College London COVID-19 response team estimates that the risk of reinfection with the Omicron variant to be several times greater than that of the Delta variant.[3] Indeed, emerging evidence is suggesting that Omicron could have a reproduction number up to four times greater than Delta under the same epidemiological conditions, due to an ability to evade immunity provided by previous infection and vaccination.[4] Ongoing support is necessary in response to new challenges of Omicron, which has a very different biological and epidemiological profile to earlier VoC, and which is now transmitting rapidly through Australia, including in our vaccinated population. Many are concerned by the speed of disease spread and increased risk of becoming infected. Public health prevention measures such as wearing masks, combined with booster shots are widely promoted. The focus and recommendations included in

[1] Implementation of the National Mental Health and Wellbeing pandemic Response Plan; August 2021 Update. SA Health

[2] Karim, S. S. A. and Karim, Q. A. Omicron SARS-CoV-2 variant: a new chapter in the COVID-19 pandemic. The Lancet. 2021;2126-2128.

[3] Imperial College COVID-19 Response team. Imperial College COVID-19 Response team report 2020-2021. 2021; London; England

[4] Ito, K., C. Piantham and H. Nishiura. Relative Instantaneous Reproduction Number of Omicron SARS-CoV-2 variant with respect to the Delta variant in Denmark. Journal of Medical Virology. 2021 (accepted)

this document are therefore developed in an iterative process, whereby changes occur as new evidence becomes available.[5]

Key Points

- It is highly likely that the onset of the COVID-19 pandemic has created new mental health issues in the South Australian population, as well as exacerbated existing pre-pandemic mental health and suicide related distress.
- Government interventions and support that broadly aim to reduce measures of insecurity (i.e., economic, housing, health) have played an important role in supporting people's mental health. For some, there has also been a strong sense that we are all in this together, in the same way that people come together after a natural disaster like a bushfire or cyclone.
- The uncertainty and new challenges associated with Omicron and other VoC can be linked to difficulty maintaining family, work, social and cultural connections during the pandemic.
- Creation of grant funding opportunities to establish and re-establish social connectedness should be co-designed with individuals with lived and living experience of mental health and suicide related distress. Participatory methods should be considered as an essential element of the South Australian government response going forward.
- Careful and compassionate listening, evidence-based self-help resources and services that develop helpful coping skills and provide hope, and co-produced safety planning for people at risk of suicide, are central to help prevent the onset or worsening of mental distress or suicidal behaviour, particularly among the most vulnerable.

Overall Impacts

The pandemic has had a significant impact on all aspects of society including work and family life, as well as mental health and wellbeing. Never in our lives have we experienced such a pervasive global phenomenon. The effects of the pandemic, safety measures to contain spread, and attempts to mitigate adverse impacts on the mental health and wellbeing of the population have been documented across the lifespan. Examples of the impact are the observed increases in generalised anxiety, depression, loneliness, psychological distress, and poor sleep quality.[6] [7] [8] Development of post-traumatic stress disorder has been observed in those who required hospitalisation to manage a COVID-19 infection.[9]

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[5] Content was up to date to the best of our knowledge and understanding at the time of production (10 January 2022). Note that an earlier version of this paper was published on 1 October 2021.

[6] Huang Y, Zhao N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. Psychiatry Research. 2020;288:112954.

[7] O'Connor RC, Wetherall K, et al. Mental health and well-being during the COVID-19 pandemic: longitudinal analyses of adults in the UK COVID-19 Mental Health & Wellbeing study. Br J Psychiatry. 2020:1-8.

[8] Xiong J, Lipsitz O, et al. Impact of COVID-19 pandemic on mental health in the general population: A systematic review. Journal of Affective Disorders. 2020;277:55-64.

[9] Janiri D, Carfì A, et al. Posttraumatic Stress Disorder in Patients After Severe COVID-19 Infection. JAMA Psychiatry. 2021;78(5):567-9.

Self-Harm and Suicidal Behaviour: Adults

When the global pandemic first hit, many raised concerns about its effect on mental distress and rates of suicide. The drivers of concern included: fear and anxiety about infection, isolation from others including loved ones, disruptions to psychosocial care arrangements for people in community and residential care settings, domestic abuse, and the trauma of bereavement. Predictions about suicide risks and increasing rates began to be reported in the media.[10] While there is a considerable body of evidence that the pandemic and associated containment measures are closely associated with increases in self-harm and suicide behaviour in the population,[11] clear sustained patterns between pandemic and suicide deaths are yet to be identified. Suicide is a complex phenomenon linked to a range of social determinants. Several studies demonstrate statistically significant effects that the prevalence of mental illness, alcohol consumption, literacy rate, unemployment and other social factors have on rates of suicides.[12] Understanding and interpreting the association between COVID-19 and suicidal behaviour is particularly complex as the international evidence base on this topic is still emerging.

Findings from the first six weeks of lockdown in the UK highlighted that rates of suicide ideation increased over time, with one in seven young adults (14%) reporting recent suicidal thoughts at the sixth week of lockdown. However, levels of self-harm and suicide behaviour were low (ranging between 0.1% to 1.4%).[13] Consistent with these patterns, a meta-analysis of data from 21 countries showed that there has not been an increase in suicide trends during the COVID-19 pandemic.

Conversely, some countries or jurisdictions have seen a decrease in suicide rates relative to the expected number of cases (New South Wales – Australia, Chile, New Zealand).[14] On 29 September 2021, the ABS released the *Causes of Death (Catalogue No. 3303.0)* data. The data showed that in 2020, a total of 3,139 Australians died by suicide – 179 fewer deaths than occurred in 2019.[15] Amongst females, the suicide rate was the lowest since 2013 and amongst males the lowest since 2016. In 2020, 234 people died by suicide in SA, which was a decrease from 251 recorded in 2019.

The ABS was able to present data related to the pandemic for each decedent where it was mentioned by relevant key authorities (e.g., police, coroner, pathology report). It noted that in 2020, 3.2% of suicide deaths (n=99) reported factors related to COVID-19, in addition to other risk factors. Over 90% of people who died by suicide had at least one risk factor reported. Use of alcohol and other drugs was the second most commonly overall mentioned risk factor (29.3%).

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[10] Appleby L. How real time suicide figures can help us through the pandemic. 2021; Retrieved 13/09/2021, from https://nhsproviders.org/news-blogs/blogs/how-real-time-suicide-figures-can-help-us-through-the-pandemic.

[11] COVID-19 and Australia's Mental Health. Report of June 2021 Meeting of Australia's Mental Health Think Tank.

[12] İlgün G, Yetim B, et al. Individual and socio-demographic determinants of suicide: An examination on WHO countries. International Journal of Social Psychiatry. 2019;66(2):124-8.

[13] O'Connor RC, Wetherall K, et al. Mental health and well-being during the COVID-19 pandemic: longitudinal analyses of adults in the UK COVID-19 Mental Health & Wellbeing study. British Journal of Psychiatry.2020:1-8.

[14] Pirkis J, John A, et al. Suicide trends in the early months of the COVID-19 pandemic: an interrupted time-series analysis of preliminary data from 21 countries. The Lancet Psychiatry. 2021;8(7):579-88.

[15] Australian Bureau of Statistics. Cause of Death, Australia. 2021. Retrieved September 30, 2021, from https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/2020.

Data from Canada indicate that for the first post-pandemic interval evaluated (March 2020 – February 2021), suicide rates decreased 32% in the first year of the pandemic compared with the year before.[16] This was against a background of extraordinary public health measures intended to mitigate community spread of COVID-19. A product of public health measures was a significant rise in national unemployment rates in population measures of distress. The Canadian results suggest that government interventions that broadly aim to reduce measures of insecurity (i.e., economic, housing, health) and timely mental health services should be prioritised as part of a national suicide reduction strategy, not only during but also after the COVID-19 pandemic.

A study from Japan, however, noted an increase in suicide attempts following an initial decline during the onset of the pandemic. More specifically, suicide rates decreased by 14% during the first five months of the pandemic, then increased by 16% from July to October 2020.[17]

All reported findings come with caveats. It is still too early to rule out the possibility of a high rate in some settings or sub-population groups within countries, particularly as the effects of the pandemic have not been uniform across age and demographic groups. People who experience disadvantage, including those from minority ethnic groups, are more likely to experience greater challenges because of the pandemic. Specific challenges may include job loss, food security issues in response to panic buying, and less flexibility to work from home.

The public health impacts of COVID-19 are not over. Further studies with longitudinal methodologies and a focus on suicide as the primary outcome are still necessary to fully understand the issue. Sometimes the full extent of a disaster is not felt for many years after the event, and impacts could worsen over the coming years before they subside. Evidence-based suicide prevention intervention efforts must continue alongside economic mitigation, prevention of access to lethal means, and continued emphasis upon early help seeking. The *International Association for Suicide Prevention* stresses the importance of careful and compassionate listening, sharing a helpful resource, and helping someone to make a safety plan as central to prevent suicide amidst COVID-19[18] – particularly for people who are most vulnerable.[19]

There is steadily accumulating evidence emerging on the neurological and mental health sequelae of COVID-19. While more data are needed to adequately assess the effects of COVID-19 on brain health, recent and meaningful estimates of the risks of major neurological and psychiatric conditions in the six months after a COVID-19 diagnosis, draw from the electronic health records of over

[16] McIntyre RS, Lui LMW, et al. Suicide reduction in Canada during the COVID-19 pandemic: lessons informing national prevention strategies for suicide reduction. Journal of the Royal Society of Medicine. 2021:01410768211043186.
[17] Tanaka T, Okamoto S. Increase in suicide following an initial decline during the COVID-19 pandemic in Japan. Nature Human Behaviour. 2021;5(2):229-38.
[18] The International Association for Suicide Prevention. World Suicide Prevention Day 2021. 2021; Retrieved 1109/2021, from https://www.iasp.info/wspd2021/.
[19] Kahil K, Cheaito MA, et al. Suicide during COVID-19 and other major international respiratory outbreaks: A systematic review. Asian Journal of Psychiatry. 2021;56:102509.

236,000 patients with COVID-19.[20] The authors report incidence and hazard ratios compared with patients who had influenza or other respiratory tract infections to demonstrate that both incidence and hazard ratios were greater in patients who required hospitalisation or admission to an intensive therapy unit, and in those who had encephalopathy (delirium and other altered mental states) during the illness compared with those who did not. COVID-19 was robustly associated with an increased risk of neurological and psychiatric disorders in the six months after a diagnosis. Given the size of the pandemic and the chronicity of many of the diagnoses and their consequences (e.g., dementia, stroke), substantial effects on health and social care systems are likely to occur. The data provide important evidence indicating the scale and nature of services that might be required. The findings also highlight the need for enhanced neurological follow-up of patients who were admitted to ICU or had encephalopathy during their COVID-19 illness.[21]

A targeted response needs to be developed in responding to possible escalation of mental distress, existing biopsychosocial risk factors, self-harm, and suicidal behaviour. Developing and adapting current state and national strategies to respond to people in mental distress or suicidal crisis, psychosocial care and support following COVID-19 illness, particularly when interpersonal contact is limited, is essential to increase quality of care and foster a person-centred and trauma-informed response to those who need it.

Long-term Effects of COVID-19 on Mental Health

Since the beginning of the pandemic, concerns regarding the long-term effects of a COVID-19 infection have arisen based on evidence from other coronaviruses. Case studies and large-scale retrospective studies have documented the physical, neurological and psychiatric outcomes associated with 'Long COVID'. Up to one-third of people infected with SARS-Cov-2 experience neurological or psychiatric issues at six months post-diagnosis.[22] Additionally, issues of fatigue and joint pain are likely to reduce a person's ability to participate in work and leisure, further increasing their risk of mental ill-health. There is considerable evidence suggesting that physical pain is an independent contributor to suicidal behaviours, with reports of around 10% of people who die by suicide experiencing chronic pain.[23] Recent insights from narrative interviews and focus groups with 114 people with Long COVID, 45 of whom were healthcare professionals, suggest diverse manifestations of a complex new illness, challenging the perception of COVID-19 as an acute respiratory illness.[24] There appears to be an association between severity of disease in a person with COVID-19 and development of Long COVID symptoms.[25] Therefore, we can posit that increased

[20] Taquet, M., J. R. Geddes, M. Husain, et al. (2021). "6-month neurological and psychiatric outcomes in 236 379 survivors of COVID-19: a retrospective cohort study using electronic health records." The Lancet Psychiatry **8**(5): 416-427.
[21] Ibid.
[22] Taquet M, Geddes JR, et al. 6-month neurological and psychiatric outcomes in 236,379 survivors of COVID-19: a retrospective cohort study using electronic health records. The Lancet Psychiatry. 2021;8(5):416-27.
[23] Pakniyat-Jahromi S, Sher L. Pain management and prevention of suicide in the COVID-19 era. European Archives of Psychiatry and Clinical Neuroscience. 2021.
[24] Rushforth A, Ladds E, et al. Long Covid - The illness narratives. Social Science and Medicine. 2021;286:114326.
[25] Taquet M, Geddes JR, et al. 6-month neurological and psychiatric outcomes in 236,379 survivors of COVID-19: a retrospective cohort study using electronic health records. The Lancet Psychiatry. 2021;8(5):416-27.

vaccination rates will lead to less severe disease, which in turn will reduce the presence of Long COVID in the South Australian population.

Workforce

The prolonged pandemic period is likely to have exhausted our health workforce. Pandemic related fear, uncertainty and social isolation has been a source of stress among health workers, including those who are not involved in the frontline and those with underlying health conditions. Some in the latter group have expressed concerns about being redeployed to help manage the pandemic on the frontline. Concerns about risk of exposure when attending to infected people were particularly prevalent when the transmission mechanisms of COVID-19 were relatively unknown. Amongst frontline workers, burnout and fatigue are frequently reported as responses to managing increased crisis and emergency department demand, driven by people experiencing increased mental health related complexity because of pandemic related fear, uncertainty, and social isolation.

Experience of moral distress amongst health workers has also been reported, with workers feeling guilt about the help they have been able to provide people in distress, concerns for their own safety and that of family members, and decision making about allocation of finite resources (e.g., staffing allocations, ventilators and respiratory support equipment).[26] [27] Moral distress is closely linked to the development of depression, anxiety, post-traumatic stress and burnout.[28] Organisational support in the form of sufficient resources and staffing, clear communication between management sectors and workers on the ground, and valuing of professional efforts, must be put in place to guarantee that frontline COVID-19 health workers feel protected and valued.[29] Creation of collective safe spaces for sharing experience and coping strategies can assist workers in navigating the intrinsic challenges of providing care during COVID-19.[30]

There is a strong connection between employment and mental health. Engagement with work helps an individual to build and maintain their productive identity, a protective factor for mental health. Conversely, disengagement with employment – and the financial stress associated with unemployment – causes an increase in mental ill health as well as suicidal thoughts and behaviour. The current downward trend of unemployment in South Australia is promising (currently at 5.0%).[31] However, because the Australian Bureau of Statistics' definition of 'employment' in labour statistics includes any individual engaging in one hour per week of paid work, this does not contemplate whether the employment is satisfactory for the individual employed, or sufficient to live on. There is

[26] Zhang WR, Wang K, et al. Mental Health and Psychosocial Problems of Medical Health Workers during the COVID-19 Epidemic in China. Psychotherapy and Psychosomatics. 2020;89(4):242-50.
[27] Smallwood N, Pascoe A, et al. Occupational Disruptions during the COVID-19 Pandemic and Their Association with Healthcare Workers' Mental Health. International Journal of Environmental Research Public Health. 2021;18(17).
[28] Ibid.
[29] Brooks SK, Webster RK, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. The Lancet. 2020;395(10227):912-20.
[30] Macedo, D, Riley, J-A, et al. Responding to an Invisible Disease: Trauma-informed Mental Health Practice During COVID-19 (manuscript under review)
[31] Australian Bureau of Statistics. Labour Force, Australia. 2021. Retrieved September 16, 2021, from https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia/aug-2021.

potential for people to be in financial hardship due to underemployment. The rate of underemployment (8.0%), and youth unemployment (9.2%) remain figures of concern.[32] Continued efforts to support people to join the workforce, as well to support them while they are unemployed, will be needed to mitigate the mental health effects of insufficient and insecure work.[33] This will be particularly important for those in industries heavily affected by social restrictions, including but not limited to, hospitality, fitness, and tourism.

Disadvantaged Groups and Those at Increased Risk

COVID-19 does not affect all members of society equally and differences are likely due to long-standing social determinants of health. The pandemic has been shown to increase health disparities for disadvantaged groups.[34] The impact of COVID-19 on mental health was noted in the aforementioned systematic review as being more significant for vulnerable groups.[35] Similarly, a large-scale American study found that people affected by socioeconomic inequality were observed to be at increased risk of self-harm and suicide-related behaviour.[36] Among the affected groups were females, young adults (18-29), people from disadvantaged socioeconomic backgrounds, ethnic minorities, and those with existing mental health conditions, which also aligns with findings from the aforementioned Japanese study.[37] [38]

People of Migrant and Refugee Background

Culturally and linguistically diverse (CALD) communities in Australia can face significant challenges with accessing information and support to assist with the management of depression and anxiety. Increased stigma surrounding mental ill-health in some cultures and related concerns about trust and confidentiality all impact upon timely access to information, services and support for consumers and carers from CALD backgrounds.[39] In 2020 a national campaign highlighted the plight of 1.1 million temporary migrants, including temporary workers and international students in Australia, who were experiencing adversity due to loss of employment and who were ineligible for government support. Loss or reduction in employment opportunities meant that people of refugee background on temporary visas had trouble living in rented accommodation, buying food, and affording basic necessities. While those on Temporary Protection Visas are eligible for welfare

[32] Ibid.
[33] Australia's Mental Health Think Tank. Preventing Pandmeic Distress Through Economic Supports. 2021; Sydney: NSW.
[34] Nuzzo JB, Gostin LO. The First 2 Years of COVID-19: Lessons to Improve Preparedness for the Next Pandemic. JAMA. 2022. (accepted)
[35] Xiong J, Lipsitz O, et al. Impact of COVID-19 pandemic on mental health in the general population: A systematic review. Journal of Affective Disorders. 2020; 277:55-64.
[36] Fitzpatrick KM, Harris C, et al. How bad is it? Suicidality in the middle of the COVID-19 pandemic. Suicide and Life-Threatening Behavior. 2020;50(6):1241-9.
[37] Ibid.
[38] Tanaka T, Okamoto S. Increase in suicide following an initial decline during the COVID-19 pandemic in Japan. Nature Human Behaviour. 2021;5(2):229-38.
[39] Baker AE, Procter NG, et al. Engaging with culturally and linguistically diverse communities to reduce the impact of depression and anxiety: a narrative review. Health and Social Care in the Community. 2016;24(4):386-98.

payments, this group's temporary visa status meant they were ineligible for JobKeeper and JobSeeker payments made available to Australian citizens during the pandemic.[40]

Resurgence of COVID-19 and consequential risk of a severe economic downturn means many people of migrant and refugee background could be seeking work in a competitive job market with limited opportunities for non-citizens and permanent residents. Not-for-profit agencies have previously reported on such conditions causing dramatic increase in demand on their services for food, housing, and essential health care. Women from refugee backgrounds who have precarious migration status are at increased risk of intimate partner abuse. Demand for support services has increased during COVID-19, and women on temporary visas are at greater risk due to having fewer options for financial and housing support. A national study of migrant and refugee women who had experienced family abuse found that between March and November 2020, 17% reported that this had happened for the first time, 23% reported that the behaviour increased in frequency, and 15% reported that the behaviour increased in severity.[41]

People with Pre-existing Mental Health Conditions

It has been noted that the pandemic has exacerbated some of the previously identified risk factors for self-harm and suicide behaviour.[42] Depression, for example, is one of the most significant risk factors for the onset of suicidal behaviour and can increase during social distancing restrictions and lockdowns.[43] Other risk factors exacerbated by COVID-19 include fear and anxiety about infection, prolonged experience of stress and uncertainty due to intermittent measures to mitigate disease spread, financial stress due to reduced working hours or unemployment, loneliness, social isolation, and limited access to healthcare services and mental health support.[44] Individuals with previous experiences of mental illness might find it harder to cope with uncertainty, become more easily unsettled by disruptions to routines, and therefore be more vulnerable to conditions such as depression and both generalised and health-related anxiety.[45]

While the COVID-19 pandemic has the potential to exacerbate pre-existing mental health conditions and reduce access to social and professional support, it is also possible, particularly in rural areas, that it has led to an increase in the availability of support. This includes greater access to telephone counselling services including Lifeline, and psychology telehealth sessions, which can be advantageous for people with conditions such as anxiety, depression, and agoraphobia. In contrast,

[40] Isaacs AN, Enticott J, et al. Lower Income Levels in Australia are Strongly Associated with Elevated Psychological Distress: Implications for Healthcare and Other Policy Areas. Frontiers in Psychiatry. 2018; 9:536.
[41] Kenny MA, Grech C, et al. A trauma informed response to COVID 19 and the deteriorating mental health of refugees and asylum seekers with insecure status in Australia. International Journal of Mental Health Nursing. 2021
[42] Robillard R, Daros AR, et al. Emerging New Psychiatric Symptoms and the Worsening of Pre-existing Mental Disorders during the COVID-19 Pandemic: A Canadian Multisite Study. The Canadian Journal of Psychiatry. 2021:0706743720986786.
[43] Ibid.
[44] Brooks SK, Webster RK, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. The Lancet. 2020;395(10227):912-20.
[45] Rettie H, Daniels J. Coping and tolerance of uncertainty: Predictors and mediators of mental health during the COVID-19 pandemic. American Psychological Association. 2021;76(3):427-37.

people with a previous experience of mental ill health and/or trauma might be particularly vulnerable to risk factors associated with the pandemic and its aftermath. When seeking support, being unable to engage in in-person contact can limit perception of a warm and empathic care response, compromising prevention of future suicide-related behaviour and recovery.

Aboriginal and Torres Strait Islander People

As COVID-19 has exacerbated health disparities, pandemic-related stressors might disproportionately impact Aboriginal and Torres Strait Islander people. Aboriginal and Torres Strait Islander people and those in remote communities continue to be a priority as there are often higher rates of accompanying physical and mental health issues. People in community can be very mobile and travel often.[46] Aboriginal and Torres Strait Islander people's access to health services is often affected by discrimination and services' poor cultural competence.[47] In addition, the pandemic might further impair access to social and emotional wellbeing support for Aboriginal and Torres Strait Islander people due to restricted access to country, reduced access and connection to family, and reduced availability of services. The use of telehealth can be challenging for Aboriginal and Torres Strait Islander people when there is limited access to infrastructure, as well as distrust of health systems, which can prevent the disclosure of personal information through electronic means.[48] Additionally, the low uptake of the COVID-19 vaccines in Aboriginal and Torres Strait Islander populations, due to the reasons stated above, increases the risk of severe disease as a result of COVID-19 infection within these communities. As of the 21 December 2021, first does rates among Indigenous communities in South Australia remained below 80%.[49]

It is essential that the broader non-Aboriginal mental health workforce ensures mental health and suicide prevention care is delivered through culturally safe and respectful practice that acknowledges and addresses individual racism, clinicians' own biases, assumptions, stereotypes, and prejudices. Care provided must be holistic, free of bias and racism. Practitioners must recognise the importance of self-determined decision-making, partnership and strengths-based collaboration in healthcare which is driven by the individual, family, and community. Collaborative work between health sectors and Aboriginal and Torres Strait Islander peoples and communities is the most effective way of addressing the additional challenges created by COVID-19.

Children and Young People

Children and young people have a different relationship with the pandemic than the older population. While they are less concerned about the health impacts of COVID-19, young people aged 15-19 report disruption to education (34%) and mental health (17%) as their two biggest concerns

[46] Australian Department of Health. For Aboriginal and Torres Strait Islander peoples and remote communities.
[47] Lau P, Pyett P, et al. Factors Influencing Access to Urban General Practices and Primary Health Care by Aboriginal Australians—A Qualitative Study. AlterNative: An International Journal of Indigenous Peoples. 2012;8(1):66-84.
[48] Follent D, Paulson C, et al. The indirect impacts of COVID-19 on Aboriginal communities across New South Wales. Medical Journal of Australia. 2021;214(5):199-200.e1.
[49] Australian Department of Health. COVID-19 vaccination – Geographic vaccination rates – SA4 Indigenous population – 22 December 2021. 2021; Canberra, DoH.

during the pandemic.[50] Young people have also expressed their concern about their lack of voice in the discourse and decision-making processes throughout the pandemic, with up to 65% thinking that there was no clear way for children and young people to contribute to the national discussion.[51]

Peaks in contact attempts to Kids Helpline coincided with national (April) 2020 and Victorian (August 2020) outbreaks and restrictions.[52] During these peaks, contact for mental health concerns, suicide and self-harm, and problems with family relationships increased.[53] Comparing emergency department presentations in Victoria during October 2019 and October 2020, self-harm injury presentations increased by 6.3% in males and 23% in females aged 0-24.[54] While key risk factors associated with deaths by suicide have increased throughout the pandemic (unemployment, psychological distress, social isolation), available data from Queensland, New South Wales, and Victoria have shown suspected deaths by suicide in young people did not increase during 2020.[55] It is possible that this is because of a number of protective factors for suicidal thoughts and behaviour, including secure income through JobKeeper and JobSeeker, and a sense of unified community against a common threat (a sense that 'we are all in this together').

For children and young people, the COVID-19 pandemic created significant disruption at a time of pivotal physical and social development. Exposure to stress (changes in routine, responsibilities, remote learning, reduced contact with other children), and the stress of their families (financial stress, working from home, and changes to caregiving roles) can have an impact on the social and cognitive development of children and young people.[56] There is Australian evidence that parents are experiencing higher rates of anxiety, depression, stress, alcohol use, and strain on familial relationships compared with pre-pandemic levels.[57] Home confinement and quarantining measures have been associated with in an increase in emotional and behavioural symptoms.[58] It is likely that these effects will have long-term developmental consequences for children and young people, and planning for child development and mental health services should consider this into the future.

Alongside these factors the pandemic has amplified young peoples' recognition of the need to destigmatise and diversify Australia's approach to mental health and wellbeing for young people.

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[50] Tiller E, Fildes J, et al. Youth Survey Report 2020. 2020; Sydney, Mission Australia.
[51] UNICEF Australia. Swimming with Sandbags: The views and experiences of young people in Australia five months into the COVID-19 pandemic (August 2020). 2020; Sydney, UNICEF.
[52] Australian Institute of Health and Welfare. COVID-19 and the impact on young people. 2020; Canberra, AIHW.
[53] Batchelor S, Stoyanov S, et al. Use of Kids Helpline by Children and Young People in Australia During the COVID-19 Pandemic. Journal of Adolescent Health. 2021;68(6):1067-74.
[54] Australian Institute of Health and Welfare. COVID-19 and the impact on young people. 2020; Canberra, AIHW.
[55] Ibid.
[56] Yoshikawa H, Wuermli AJ, et al. Effects of the Global Coronavirus Disease-2019 Pandemic on Early Childhood Development: Short- and Long-Term Risks and Mitigating Program and Policy Actions. The Journal of Pediatrics. 2020; 223:188-93.
[57] Westrupp EM, Bennett C, et al. Child, parent, and family mental health and functioning in Australia during COVID-19: comparison to pre-pandemic data. European Journal of Child Adolescent Psychiatry. 2021:1-14.
[58] Oliva S, Russo G, et al. Risks and Protective Factors Associated with Mental Health Symptoms During COVID-19 Home Confinement in Italian Children and Adolescents: The #Understandingkids Study. Frontier Pediatrics. 2021; 9:664702.

Many young people want positive, skills-based, and peer-lead psychosocial support.[59] These qualities in mental health management relating to COVID-19 are consistent with findings following the 2019 bushfire season. Decreased perceived control and increased psychosocial distress presents an increased risk of self-harm and suicide. With the cessation of JobKeeper, the return of JobSeeker to pre-pandemic levels, and a shift in the national narrative surrounding the pandemic, COVID-19 in South Australia could pose a significant risk to children and young people if underlying psychosocial issues are not adequately addressed.

Older People

For the older population, the COVID-19 pandemic represented an acute threat to morbidity and mortality. Indeed, older people were specifically advised to reduce their interactions with others due to their vulnerability to the virus.[60] It has been reported in Australia that physical distancing measures to reduce the spread of COVID-19 have resulted in up to one-third of older Australians experiencing depression, and up to 20% experiencing anxiety or other psychosocial distress.[61] As well as anxiety around contracting COVID-19, older people may experience poorer mental health due to disruptions to their usual social interactions (for example, grandparent caring responsibilities). Given increased risk of depression, renewed attention could be orientated towards screening for depression, particularly for people living alone, so that appropriate early support and treatment can administered. There may be further risk to older people as, generally speaking, they utilise more health services more frequently, and disruption to these services may have a negative effect on their physical and mental health. Focus may be needed on older Australians in assisted and residential living situations, as these people are often dependant on staff and carers to assist with activities of daily living. Fear and anxiety around COVID-19 in this population may have been amplified by the deaths that occurred in residential living facilities in Victoria during the second wave of infections in 2020.

People with Sexual and/or Gender Diverse Identities

Pre-pandemic, members of the LGBTQI+ community were known to experience poorer mental health outcomes and higher rates of suicide when compared to the general population. In the context of the pandemic, concentrated efforts must therefore be made to prevent the worsening of, and ultimately reduce, these phenomena.[62] For members of the LGBTQI+ community, quarantine and social distancing requirements have resulted in decreased contact with social groups that are supportive of their sexual orientation and/or gender identity. Confinement with non-supportive family members increases risk for a group identified as vulnerable to poor mental health outcomes due to previous experience of bullying, discrimination and social exclusion. Intervention must focus on identifying early signs of mental health challenges, offering coping strategies, and creating and

[59] UNICEF Australia. Swimming with Sandbags: The views and experiences of young people in Australia five months into the COVID-19 pandemic (August 2020). 2020; Sydney, UNICEF.
[60] Wand APF, Zhong B-L, et al. COVID-19: the implications for suicide in older adults. International Psychogeriatrics. 2020;32(10):1225-30.
[61] Strutt PA, Johnco CJ, et al. Stress and Coping in Older Australians During COVID-19: Health, Service Utilization, Grandparenting, and Technology Use. Clinical Gerontology. 2021:1-13.
[62] Skerrett DM, Mars M. Addressing the Social Determinants of Suicidal Behaviours and Poor Mental Health in LGBTI Populations in Australia. LGBT Health. 2014;1(3):212-7.

reinforcing alternative ways of connecting with supportive peers, such as via online means. Service planners can benefit from recovery-oriented and person-centred models of care when approaching LGBTQ+ people to understand how their needs changed over the course of the pandemic and adapt service delivery to their benefit.

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Table 1: Recommendations for pandemic related mental health and suicide prevention support

Recommendations are made alongside emergent evidence. Adjustments and priority setting will be required depending on local needs and circumstances. Trauma-informed and compassion-based interventions are recommended across all recommendations. Trauma informed care and practice is an organisational and practice approach to delivering health and human services directed by a thorough understanding of the neurological, biological, psychological, and social effects of trauma and its prevalence in society. It is a strengths-based framework that emphasises physical, psychological, and emotional safety for consumers, their families and carers, and service providers.

Mental Health and Suicide Prevention COVID-19 Risk Factors	Recommendations	Why is this important?	Anticipated outcomes
Increased perceived uncertainty and effects on emotional experience and regulation	Promote strategies likely to increase help offering and support-seeking behaviour. Incorporate strategies that create new social connection routines in times of uncertainty, and that are COVID-safe. Build upon and apply at scale evidence based key public health measures of Zero Suicide healthcare, including accessible psychological support and co-designed safety planning, especially for those vulnerable to the effects of uncertainty. Particular attention should be given to ensure that alcohol and drug harm reduction supports where appropriate are part of an embedded approach. Promote strategies to maintain routines and monitor and increase sleep, eating and exercising habits. Combine health habits with strategies to enhance emotional regulation. Expand use of online technology and supports at scale.	Managing and mitigating uncertainty can mediate the relationship between perceived threat and responses of anxiety and depression. Individuals in the vulnerable groups (e.g., young people and those >70-years; presenting chronic respiratory conditions) are at a higher risk of health-related anxiety. Omicron and other VoC have emerged at a time when weariness, uncertainty, and frustration associated with the biological and epidemiological impacts of pandemic are growing. People who are struggling with pandemic related stressors are more vulnerable to the effects of sleep deprivation and poor diet on the ability to emotionally regulate.	Assisting people to identify early signs of anxiety and post-traumatic response. Promotion of efficient psychological flexibility, coping and emotion regulation strategies (e.g., acceptance and social support seeking). Increased awareness of the effects of poor health habits on emotion regulation in social, family and work settings, particularly for people with previous mental illness. Personalised coping and support strategies expressed as a safety plan reinforce reasons for living and making situations safer.

Mental Health and Suicide Prevention COVID-19 Risk Factors	Recommendations	Why is this important?	Anticipated outcomes
Social isolation	Introduce flexible options for lived experience led grant opportunities as well as for sporting, community and regional linked groups across the sector, involving grass roots organisations to support vulnerable people and multicultural communities living in priority areas. Screen for mental health effects of social isolation in primary health care delivery. Use compassionate and person-centred care in health responses. Use online technology at scale to promote sense of social connection (e.g., online groups, empathy-oriented telephone calls program). Promote co-designed, online, evidence-based self-help programs that can teach key coping strategies known to be helpful in this context.	Responding to pandemic related social isolation means government and non-government organisations can link individuals in need with vital support services, including family and parenting supports, food and essential items, and specialist counselling to address issues such as mental health concerns, drug and alcohol abuse and family domestic abuse. Local peer support groups, faith-based organisations or other not-for-profit groups can be well placed to address the drivers of loneliness, social alienation, and reduced sense of purpose, meaning and emotional connection to others. Such actions can also mitigate increased intensity of depressive and anxious thoughts and perceived absence of caring and reciprocal relationships, all known risk factors for suicide.	Future pandemic outbreaks can amplify hardships for people with existing vulnerabilities, including LGBTQI+ people, recently arrived migrants, people with temporary visas, young people, and older people. Increased awareness of the effects of social isolation on mental health and uptake of mitigation efforts that are protective of mental health. Promotion of acceptance strategies and offer of new forms of social connection and trust. A caring and empathic response to those most likely affected.
Psychological impact of quarantine	Provide lived experience informed information on why quarantine is necessary. Effective, rapid communication is essential. Ensure information is accessible in multiple languages and is developmentally appropriate for children and young people, therefore promoting support and in-reach. Emphasise the altruistic choice of self-isolation. Ensure quarantine is short; duration should not be changed unless in extreme circumstances.	There is considerable scope for lived experience developed advice and education about known impacts of quarantine on mental health and strategies for how to maintain mental health and wellbeing when in lockdown. Information made available for children and young people as well as adults, and in multiple languages, will help ensure reach, relevance, and impact. Most of the adverse effects of quarantine (e.g., post-traumatic stress symptoms, confusion, and anger) result from perceived imposition of restriction of liberty. A perception of quarantine as altruistic reduces stress and long-term complications.	Clear communication from public health officials on reasons for and duration of quarantine reaches communities across the lifespan. Consistent government response and commitment to minimal quarantine periods. Promoting social cohesion and creating a sense of shared responsibility and benefits over social isolation measures.

Mental Health and Suicide Prevention COVID-19 Risk Factors	Recommendations	Why is this important?	Anticipated outcomes
Aboriginal and Torres Strait Islander peoples	Consult and work collaboratively with Aboriginal and Torres Strait Islander community and service provider representatives (e.g., Thirrili) on what practical steps and services are working and what is needed. This may include accessing resources, training, and/or other mental health and suicide prevention activity developed or currently in preparation. Aboriginal and Torres Strait Islander people, especially in remote communities, are to be considered a priority as there are often higher rates of accompanying physical and mental health issues.	Pandemic exacerbates health disparities that might disproportionately impact Aboriginal and Torres Strait Islander people. Culturally safe help seeking and help offering actions in the context of pandemic must be co-designed with Aboriginal people. Pandemic impacts span restricted access to country, reduced access and connection to family, and reduced availability of services. It can also be harder to access mental health and suicide prevention care and support.	Pandemic can amplify difficulties for Aboriginal and Torres Strait Islander people and their support networks. A whole of system and Aboriginal and Torres Strait Islander specific mental health and suicide prevention support is developed through respectful consultation. Consultation, building on existing relationships and partnerships and drawing from evidence will guide early intervention and prevention focussed strategies and supports. There is widespread visibility and use of culturally safe strategies and supports.
Job insecurity and financial distress	Ensure people working in affected industries receive social welfare support during and post COVID-19. Provide continued economic support for people of immigrant and refugee backgrounds and low socioeconomic status, who have been significantly affected by the economic impact of COVID-19.	International evidence demonstrates that work-related strain and particularly financial strain have long been associated with increased risk of suicide. Changing public health prevention measures in response to the Omicron variant have impacted some small business operations due to venue capacity limits and wearing of masks. Ongoing financial stressors and loss of a productive identity can prolong perceived helpless and hopelessness, which are additional well-known risk factors for suicide. COVID-19 has increased socioeconomic disparities in health, affecting particularly people from disadvantaged groups (e.g., insecure visa status; low SES). Where the impact is higher, the response should be firmer.	Continuation of social and financial support and supplement policies such as JobKeeper, and an increase to JobSeeker payments. Ongoing specific financial support for people from disadvantaged groups (e.g., immigrants of low socio-economic background, asylum seekers, refugees). Support for vulnerable groups in finding employment and maintaining a productive identity.

Mental Health and Suicide Prevention COVID-19 Risk Factors	Recommendations	Why is this important?	Anticipated outcomes
Increased exposure to domestic abuse	Build upon existing networks and touch points to screen for experience of physical and emotional abuse and domestic abuse in routine primary health care and COVID-19 screening. Reinforce and support existing frontline services including government agencies, building capability for lived and living experience leadership in existing programs for protecting and assisting people exposed to or at risk of physical and psychological abuse. Work with sector representatives including people with lived and living experience to gather evidence on what helps to avoid the family stressors in isolation/quarantine escalating and education on early warning signs to look out for.	Emotional abuse can leave behind longer term healing that needs to take place and be supported over a sustained period. There needs to be non-judgemental support for open and confidential conversations to encourage help seeking. There can also be stigma around not being believed if physical signs are not present. Lockdown and social distancing measures have increased confinement with family members who cope with stress by violent behaviour; rates of domestic abuse have significantly increased since the pandemic onset. Intimate partner relationship problems play an integral role in influencing the development and exacerbation of deaths by suicide. Evidence will inform early intervention and prevention focused education strategies and help seeking behaviours before escalation to violence or crisis.	Increased visibility and access to relationship counselling services, gender specific supports. Clear communication about and vigilance over occurrence of domestic abuse, with established groups and lived experience led efforts. Development of guidelines and strategies for mitigation and early intervention of risk related to lockdown and social distancing measures.
Limited access to services and resources	Screen for experiences of relapse (e.g., drug addiction; manic episodes) and immediate action to reduce impact. Monitor adherence to pharmacological treatment by people experiencing chronic mental health conditions (e.g., experience of psychosis). Rapidly and efficiently adapt treatment and health care delivery options.	People with previous experience of mental illness, history of drug use, and other vulnerabilities will likely be affected by interruption of support services. In the absence of appropriate support, the mental health of vulnerable people will likely deteriorate.	Discussion and recommendation of alternative treatment responses that accommodate social distancing requirements. Recovery-oriented approach can assist people to identify what works for them in the absence of usual treatment. Involvement of key support person to maximize recovery engagement and outcomes.

Mental Health and Suicide Prevention COVID-19 Risk Factors	Recommendations	Why is this important?	Anticipated outcomes
Burnout and moral distress among health workers	Build upon existing data and modelling systems to recruit, support and retain staff into key locations as needed. Offer online and face-to-face options for early intervention and help-offering. Ensure mitigation efforts for the prevention of prolonged stress, and onset or worsening of distress. Use time in lieu/leave policies to encourage self-care, assist organisations in managing a build- up of TOIL and enable annual leave entitlements to be preserved for a longer recreational break when workload permits. Screen for mental health symptoms among health workers. Create programs that offer opportunities for debriefing and practice development. Create programs to support in-situ learning and reflection on demands, coping with uncertainty and wellness plans to support emotion regulation strategies. This will include support around what workers might notice and how they can help, i.e., 'helping the helpers' to notice and respond.	Workforce responses must be all encompassing and long-term for immediate need and help to mitigate the potential for flow on effects of uncertainty, weariness and exhaustion across the whole health system. The mental health related collateral effects of longer pandemic mitigation measures due to Omicron on social and family life can be easily found. Health workers are likely to burn out due to prolonged exposure to COVID-19-related public health and workplace changes. Workers have also experienced stigma and ostracizing from the general community when circulating in public spaces during the pandemic onset. The experience of moral distress (e.g., guilt over thinking about own safety; decisions at the point of care including allocating resources) are linked to post-traumatic stress, anxiety, depression, and burnout.	Creation of a whole of system approach to a sustained network of support for health workers to mitigate the effects of prolonged exposure, trauma related risk and moral distress. Organisational support and clear communication between management and workers on the ground to ensure staff feel understood, protected, valued and supported. Public recognition and praise and reward for the contribution that health workers have made from the start of the pandemic until present.

Mental Health and Suicide Prevention COVID-19 Risk Factors	Recommendations	Why is this important?	Anticipated outcomes
Children and young people	Build upon existing data and modelling systems to recruit, support and retain staff into key locations as needed. Take action to minimise the medium to long-term disruption or delay to the future career prospects of young people. Screen for developmental concerns, such as behavioural and emotional distress experiences. Provide timely access to high quality, evidence based mental health treatment and prevention interventions. This may include support around what frontline workers (e.g., teachers) might notice and how they can help, i.e., 'helping the helpers' to notice and respond to developmental concerns and behavioural and emotional distress experiences. Facilitate lived and learned experience led processes to identify flexible approaches to deliver information that young people consider helpful. May include development of peer led social media communications to help enable young people to trust official information. Develop peer-led and positive psychosocial support systems appropriate for the needs of children and young people.	International evidence demonstrates that suicidal thoughts, especially in young people and those from disadvantaged backgrounds, rose during the COVID-19 pandemic. Disruption to childhood social and cognitive development caused by the COVID-19 pandemic is like to have a long-lasting effect on the mental health of children and adolescents in Australia. It is necessary and important to monitor the pandemic and post-pandemic periods. The impact of the pandemic is likely to be more strongly felt in vulnerable families (e.g., recently arrived, culturally diverse) which can compromise parenting and family relationships. Experience of stressors in childhood (e.g., parent mental illness, abuse in the household) is linked to short and long-term poor mental health outcomes.	Creation of mechanisms to assist caregivers in recognising early signs of COVID-19-related maladaptive functioning (e.g., increased worrying or anger) in children and young people. Development of a support network for vulnerable families to mitigate the mental health impact on parents and children whilst promoting parenting strategies for children in distress during prolonged periods of lockdown. Development of interventions for and designed by young people to understand how to best mitigate ongoing or longer-term effects on mental health and wellbeing. Public health and media messaging (including social media) can promote developmentally and culturally appropriate emotional regulation strategies for young people in mental health distress that are COVID-19 safe.

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