Annotated Bibliography

This annotated bibliography was compiled (April 2020) by Te Rau Ora to provide insights from international literature regarding the emerging learnings about the impacts of COVID 19, and other pandemic events upon the mental health and wellbeing of people. We ask you to reflect on these to provide encouragement in how we respond and recover from COVID 19.


   Wang et al. (2020) present the findings of a survey of the general public in China during the initial stage of the COVID 19 outbreak to better understand the levels of psychological impact, anxiety, depression, and stress. The study included 1210 respondents from 194 cities in China. 53.8% respondents reported moderate or severe psychological impact; 16.5% reported moderate to severe depressive symptoms; 28.8% reported moderate to severe anxiety symptoms, and 8.1% reported moderate to severe stress levels.
Most respondents who had spent 20 to 24 hours per day at home (84.7%) were worried about their family members contracting COVID-19 (75.2%), and were satisfied with the amount of health information available (75.1%).

Female gender, student status, specific physical symptoms (e.g., myalgia, dizziness, coryza), and poor self-rated health status were significantly associated with a greater psychological impact of the outbreak and higher levels of stress, anxiety, and depression.

Specific up-to-date and accurate health information (e.g., treatment, local outbreak situation) and particular precautionary measures (e.g., hand hygiene, wearing a mask) were associated with a lower psychological impact of the outbreak and lower levels of stress, anxiety, and depression.

Overall, Wang et al. (2020) found that the factors associated with a lower level of psychological impact and better mental health status can be used to formulate psychological interventions to improve the mental health of vulnerable groups during the COVID-19 pandemic.


A commentary by Ho, Chee & Ho (2020) gives perspective from Singapore following public uncertainty and fear of COVID 19, and public advise that the nation would have to be psychologically prepared for the COVID 19 outbreak to be worse than SARS. At the time of the article, Singapore had no authoritative organisation that planned and coordinated psychological intervention in Singapore during the COVID 19
outbreak. Hospitals and health services were working in silos conducting their own psychological interventions with limited communication with one other, potentially expending resource and reducing the effectiveness of their interventions. Ho, Chee & Ho (2020) recommended the need to identify high-risk groups; the shift of psychological interventions online through Zoom, smartphone and other virtual methods; more support for Frontline Health Workforces such as preventive measures (adequate training on infection control), directives for COVID-19, a peer support system, wellbeing measures to prevent burnout or psychological distress. Also accurate dissemination of timely and accurate information and collaborative partnerships across health services to combine community approaches and efforts.

Ho, Chee & Ho (2020) also suggested better communication between hospitals and health services; the sharing of training and case discussions amongst frontline staff across common communities; training for community health workforces to facilitate better identification and management of patients’ psychological distress. Mental Health Services to continue to support clients with severe psychiatric morbidities and clients with mild to moderate mental health and addiction issues to be supported by community services. Lastly, that psychiatrists and mental health professionals should sit in the Task Force for COVID-19, to advise the government on mental health policies and psychological intervention.


People with serious mental illness are considered high risk to infectious disease, and careful planning and execution across all levels of the mental health system are essential to minimise adverse outcomes of COVID 19 to this group. An opinion article
by Dr Druss identifies four levels of strategies required to support people with serious mental illness during COVID 19 pandemic.

**Support people with serious mental illness**

- by providing up to date relevant information about how to mitigate risk and know when to seek medical treatment for COVID-19
- tailoring health information that considers limited health literacy
- messaging that assures people they can still seek health care
- encouraging healthy habits, e.g. diet, physical activity, self-management of health conditions
- addressing the impact of COVID 19 on peoples cultural, spiritual, mental, physical and whānau wellbeing
- reducing worry, fear and anxiety as these can exacerbate current health conditions
- providing information about physical distancing and good hygiene strategies.

**Mental Health Professionals**

- Assuring and providing support that maintains staff safety and (holistic ) wellbeing
- Training to recognise the signs and symptoms of COVID 19 and to develop basic strategies to mitigate the spread
- Child and whānau support if staff are working extra shifts

**Strengthening Mental Health Care Systems**

- Develop continuity-of-operations plans to ensure maintenance of vital functions in the face of staff illnesses or shortages of medications
− Protocols for identifying and referring clients at risk of infection and self-quarantine strategies for mental health professionals who develop symptoms of the illness

− Ensuring protection, including well-ventilated spaces, easy access to handwashing, and personal protective equipment should be available. Settings, including mental health units, treatment centres, residential support facilities will be at high risk for an outbreak will need to ensure that they have contingency plans to detect and contain.

**Expanding Mental Health Policies**

− Authorities will play a critical role in creating and administering policies regarding COVID-19 in mental health units, treatment facilities and community mental health and addiction centres.

− Policies will need to consider additional welfare and home supports of clients and their whānau, e- mental health interventions, and paid leave for employees.


   COVID 19 pandemic is expected to contribute to an imminent upsurge in mental health symptoms among populations to increase through direct and indirect causes including fears of contamination, stress, grief, anxiety and depression triggered by exposure to the virus. In addition, through influences from social, cultural and economic consequences occurring on individual, family and societal levels.

   The term “black swan” is used to stand for an unforeseen event (such as COVID
that has changed everything in the context of mental health care. Wind et al. (2020) discuss and promote the shift from face to face contact and therapy to online prevention, treatment and care in the future. It is imperative mental health care continues within a pandemic, which can be achieved at a ‘warm’ distance by video conferencing and internet intervention.

Some of the barriers to e-mental health care had included a lack of acceptance by health professionals and myths about therapeutic alliance could only be established in person to person. The challenge for some mental health services will be not integrating e-mental health into their normal part of routine cares. Wind et al. (2020) urge practitioners to adopt e-mental health care applications, both as methods to continue their care to current clients in need and as interventions.


Fifty clients in an acute mental health unit and 30 mental health professionals in Wuhan, Hubei province, China were diagnosed with the 2019 novel coronavirus disease (COVID-19) in the early phase of their COVID 19 outbreak. Ten days later, in the same acute inpatient mental health unit, 323 clients with severe psychiatric disorders were diagnosed with COVID-19.

The reasons for this rapid increase were the lack of caution regarding the COVID-19 outbreak early; limited staff training and understanding about infection control and the precautions needed in closed units and insufficient supplies of protective gear.

There were targeted efforts to further limit the transmission of the COVID-19 in the acute
inpatient mental health unit and still provide acute treatment for severely ill clients. Their central and regional authorities established measures, such as setting up emergency infectious hospitals and quarantine facilities; isolating suspected and diagnosed clients and their close contacts; restricting family visits to the unit; increased infection control, good hygiene and cleaning measures.

However, the COVID-19 outbreak presented unique challenges and as a result, had many implications for psychiatric hospitals, treating clients with major psychiatric disorders in China. For example, due to the mental state of clients such as (but not limited to) poor self-control, poor concentration, for some challenges with self-care, and insight did require additional support to aid in their ability to practice infection control measures to protect themselves.

In China, managing their clients with mental health issues who were suspected or confirmed with COVID 19 was a major logistical challenge. Due to the rapid escalation of clients with COVID 19 meant a severe shortage of hospital beds. Though an isolation ward was established in the acute inpatient unit, most mental health units will have little capacity to mirror the same action. Chinese authorities also established specific quarantine facilities for clinically stable mental health clients with mild-moderate symptoms of COVID 19 in makeshift centres in converted gyms, exhibition and sports centres.


   Anxiety and fear were common in patients with COVID-19. A primary medical
care centre for COVID-19 in Zhejiang Province established dynamic assessment and included risk identification for psychological crisis. The clinic integrated traditional and western medical approaches in treatment to promote illness rehabilitation through classification methods of traditional Chinese medicine. Ongoing work was needed to improve strategies of prevention, diagnosis and treatment for COVID-19.


A retrospective study of over 13700 client records (Jan 2020) was completed by mental health professionals after a psychiatrist identified a spike in first presentation clients (latent onset – older age group of people) being diagnosed with Schizophrenia as the COVID 19 infections increased in China. No explanation could be given to the potential relationship between the unusual incidence of schizophrenia in first-time clients and the outbreak of COVID-19.


An online survey of over 5300 health workforces conducted in a one week period (in the second month of the COVID 19 outbreak) identified anxiety, depression and insomnia symptoms (5.9%, 28% and 34.3%) of the total sample group, respectively. Being female, having contact with confirmed or suspected COVID 19 cases, working in the clinical first-line (having a higher risk of infection), the low availability to social support were closely related to the occurrence of depression, anxiety, insomnia symptoms.
Frontline health professionals with higher scores of social support had lower scores of anxiety, depression and insomnia, which suggested social support as a protective factor to the health professionals mental health.

Strategies that will support frontline health workforces include ensuring all possible supports are available to frontline health professionals; do regularly recognise them for the additional sacrifices they are making in the prevention and control of COVID 19. Ensure health professionals maintain contact and communication with whānau and the outside world. Pragmatic support is ensured, so their wellbeing, whānau and home lives are well supported and nurtured during COVID 19. Ensure staff have access to necessary training, supervision (professional support) for working in COVID 19 conditions and with key tools that will look after their mental and emotional wellbeing – to reduce stress levels or concerns whilst considering how they take care of others. Encourage regular kōrero and check-in opportunities amongst staff, for reflection, debrief. And being ok to ask for time out as and when needed.


A letter written during the rapid emergence of COVID 19 in Japan makes a prediction about the mental and physical health consequences for vulnerable populations. Shigemura et al. (2020) believed emotional responses of people will include extreme fear and uncertainty with a broad range of mental health concerns, including distress reactions (insomnia, anger, extreme fear of illness even in those not exposed), health risk behaviours (increased use of alcohol and tobacco, social isolation), mental health
disorders (posttraumatic stress disorder, anxiety disorders, depression, somatisation) and lowered perceived health.

It is essential mental health professionals are able to provide support to those exposed to COVID 19 and to the workforces who deliver care. Particular efforts will be needed for those with pre-existing mental health and physical conditions and frontline health workforces.


The prison population tend to experience disproportionate rates of mental illness, addiction and medical conditions. Though therapy and treatment for these conditions are a challenge for many health and correctional systems. Ongoing mental health care is still required during COVID 19.

Being in a confined space can heighten the risk to inmates of infectious disease due to close contact spread. As isolation and transfer options will be limited in prisons, preventive measures are strongly emphasised, such as influenza vaccination of inmates and staff.

Exposure to media reports of COVID 19, will raise fears, worries, and uncertainties among the prison population, which can cause an increase in stress-related illnesses and the exacerbation of pre-existing mental health conditions.

The higher level of care and support that will be required may be contravened by restrictions such as the conditions of isolation, and not having routine access to mental health and addiction specialists so as to prevent the spread of infection.
In this regard, appointed medical staff focused on preventing or treating COVID-19 will then be expected to provide psychological care and be ready to intervene during a mental health crisis.

Liebrenz et al. (2020) make a call to all governments to take into account the special needs of people in confined and closed spaces:

– Preserving continuity in psychiatric and psychological care during the COVID-19 outbreak.
– Early coordination between regional prison authorities, prison psychiatry, and general medical and general psychiatric care providers.
– Close liaison with court diversion schemes, probation officers and others.
– Clear guidance regarding visitors to prisons and jails.
– Careful triage of those with severe psychiatric and psychological cases such as; pre-existing mental illness, self- and extraneous endangerment, violence and aggressive behaviour, refusal to eat.
– Supporting staff who are providing psychological or psychiatric treatment. Sharing accurate information without bias and panic is critical.
– Ensuring the provision of PPE for staff.
– Ensuring staff are aware of the risks to COVID 19, (recognising their own vulnerabilities)
– Relocate staff from general psychiatry if shortage of forensic staff
– Care of the workforce to ensure breaks, respite and rest between shifts.
OTHER PANDEMICS


Douglas et al. (2009) examine risk factors associated with developing a mental health issue as a result of acute fear and stress levels associated with a natural or pandemic event. Their work draws from literature from natural disasters and past pandemics. They identify the following risk factors:

- Poor mental health prior to the event, bereavement, injury to self or a family member, life threat, panic, or similar emotions during a disaster, and separation from family, especially among children

- Middle-aged adults, females, and those of lower socioeconomic status are more prone to Post Traumatic Stress Disorder

- Survivors in a family may experience guilt, and considered at high-risk for mental stress

- Challenges for children and adolescents can include exposure to trauma, loss of parental support, and loss of security due to illness, death or isolation.

- Physical distancing and quarantine can provoke a reduced level of physical and mental health. As people need contact, and in crises further stimulates a need for affiliation and intimacy.

- Protective factors include being mentally healthy prior to the event and possessing
strong social support systems before, during, and after the event. Douglas et al. (2009) recommend:

- Support networks to increase coping ability
- Training or a framework for helping children cope with the aftermath of the event
- Communication networks to disseminate new, evolving information and directives as changes occur
- Contingency communication plans to ensure alternative means of communication
- Combating stress
- Leadership styles that ensure appropriate communication, direction in uncertain times, adaptability in crises, creative problem solving, willingness to try new ways of doing things, cooperation with others, and flexibility.


Stevenson et al. (2009) state children are more vulnerable to infection, complication and mortality than adults, so require a separate pandemic approach from adults. The issues that will affect children in a pandemic include vaccinations, medication availability, hospital capacity, and mental health concerns. Strategies to protect children from exposure to the influenza virus will include:

- Hygiene and infection control practices and activities in child care programs and schools
- Preventive interventions such as immunisation, physical distancing and closure of childcare programs and treatment of secondary infections
- Access to medications
− Exclusion policies for ill students and staff from child care programs and schools
− A recognition of the important roles schools play in the lives of children
− Impacts on children and families if child care programs or schools are closed
− Coordination of resources to address surges in numbers of paediatric clients to hospitals
− Hands-on training and educators to build the capacity of general hospitals to serve paediatric patients during an emergency
− Appreciation that some mitigation strategies will cause stress and confusion among children, and disrupt children’s routines
− Acknowledge stress levels are likely to increase in the home if parents cannot work or a loved one is ill
− Cancellation of rituals or support that help children cope can complicate the recovery process
− Counselling, interventions offered face to face will need to be adapted to accommodate physical distancing
− An organised mental health response to children’s needs during and after a pandemic
− Public health agencies to work with educational agencies, clinicians, hospitals, childcare providers, and mental health service providers to develop and implement a coordinated approach.

A database of 144 client records from a mental health organisation were explored for references to swine influenza to determine what if any concerns were held by mental health clients that were associated with the flu. The key themes included:

- Impacts on behaviours, where appointments were cancelled due to concerns about swine flu
- The role of the media and internet as a source of information
- Children and adolescents were particularly vulnerable to media coverage of swine flu raising worry and fear
- Impact on psychotic symptoms, with swine flu featuring in the delusions of clients with psychotic illnesses
- Overall children and adolescents were greatly over-represented in being worried about swine flu
- Clients with mood and somatoform disorders were particularly vulnerable to swine flu related concerns during the early part of the pandemic. This group included people with Obsessive Compulsive Disorder, and it was clear that contamination fears and washing rituals were exacerbated by the outbreak.


A letter to the editor of Emerging Infectious Diseases Journal draws on the learnings from the 2003 severe acute respiratory syndrome (SARS) pandemic in Hong Kong. A range of studies completed with Hong Kong residents identified the social and psychological impacts of SARS with high rates of anxiety and fearfulness. Amongst the people who recovered from SARS, they experienced negative psychological effects such as insomnia and depression. With some people being unable to rid themselves of their
memories of fighting the illness consequently these continued to disrupt their daily activities. There were also complications from the SARS medications where there was hair loss, memory loss, impaired concentration, depression and suicidality. Tsang, Scudds, & Chan (2004) recommend a systematic exploration of how SARS negatively affected people as appropriate mental health interventions are needed post-SARS to be implemented at individual, family, and societal levels.


A cohort study of 90 people who survived SARS treated in a general hospital in Hong Kong, were assessed for mental health morbidities. The tools used in the study included a Structured Clinical Interview for DSM-IV, the Impact of Events Scale-Revised and the Hospital Anxiety and Depression Scale. Functional outcomes were assessed by the Medical Outcomes Study 36-Item Short-Form Health Survey.

Mak et al. (2009) found the SARS outbreak created a range of mental health problems similar to that created by other traumatic events such as Post Traumatic Stress Disorder (PTSD), depressive disorders and other anxiety spectrum disorders. People post SARS had a cumulative incidence of *DSM-IV* psychiatric disorders of 58.9%. That is, 30 months post-SARS mental health problems remained high amongst the cohort, with one third still experiencing serious mental health problems.

The outbreak of SARS was considered to be a mental health catastrophe, with PTSD as the most prevalent long-term psychiatric condition, followed by depressive disorders. Mak et al. (2009) highlight the need to enhance preparedness and competence
of health care professionals in detecting and managing the psychological sequelae of future comparable infectious disease outbreaks.


A white paper for thought leaders, strategists, and decision-makers presents six strategies to ensure identification of mental health issues and continuation of mental health services during a pandemic. The strategies include a plan to reprogram mental health funds to diversify mental health provision; the review of existing pandemic plans to ensure simple procedures for identifying vulnerable groups. Support to the private sector; ensuring the mental health of frontline workforces; the role of media and national leadership that includes mental health.

Strategy 1. Plan to repurpose mental health funds:

- For delivery of urgent mental health services
- To create mechanisms to waive any legal and regulatory barriers
- To help train and guide staff in preparation and management of mental health problems
- To expand crisis hotlines (staff, training, scripts, referral mechanisms, and equipment)
- To define simple diagnostic and treatment algorithms for mental health and to train staff in their use
- To stock extra medications
- Create alternative staffing plans including redeploying staff from other areas to fill behind absent and distressed staff
- Develop lists of private practitioners who can be available in a crisis
‐ Develop electronic and printed materials to explain to individuals what they are going through, that in many cases it will be self-limiting, and that treatments can be effective
‐ Prepare staffing and training plans for posttraumatic stress disorder.

Strategy 2. Review existing pandemic plans to ensure simple procedures for identifying vulnerable groups

‐ Organise services for new and continuing clients with mental health problems
‐ Ensure plans have clear operational steps to identify and mitigate personnel and infrastructure vulnerabilities in the mental health system
‐ Provide communication and funding mechanisms to enable regions to receive and exchange technical assistance with key agencies, and states with special capabilities
‐ Coordinate local plans with larger regional and national planning.

Strategy 3. The Private Sector

‐ Regional and local agencies to become resources for the private sector, including business and not for profit communities
‐ Ensure the private sector plans take mental health issues into account
‐ Provide private-sector planners with ongoing technical assistance to help make their plans sound on paper and executable in fact
‐ Identify local and national organisations that can provide leadership and economies of scale to stretched government resources.
‐ Consider public-private partnerships and other creative associations and funding mechanisms to help meet the significant technical assistance needs the private sector will require.
Strategy 4. Ensuring the mental wellbeing of essential workforces

- Identify essential workforces who are most likely to excel in a crisis
- Cross-train essential workforces in technical skills to enable them to fill in for colleagues who are immobile or hyperactive
- Access crisis management training
- Ensure their availability and priority access to vaccination, transport, and communications
- Identify less critical roles for those more vulnerable to crisis
- Research tools to identify those at highest risk for posttraumatic stress disorder; prearrange care.

Strategy 5. Understanding the role of media

- Continuity plans for media outlets
- Training media experts in delivering messages that do not inflame the public, but rather mitigate panic and deliver specific instructions
- Messages that address emergency actions and include rationale, duration, and required actions
- Create the messages in a wide variety of media (broadcast, internet, print)
- Ensure there are linguistically and culturally diverse messages and methods of communication
- Assigning stewards for message content and distribution at national and local levels
- Selective messages for education, public and other groups.
Strategy 6 Working Collaboratively

− Organisations need to work together to identify agencies with mental health expertise or access to it as agencies involved in pandemic planning will not have technical expertise in mental health

− Lead agencies and their leadership are empowered to work with its sister agencies and that it is sufficiently funded.