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The nexus between Climate Change and Mental Health

Briefing prepared by Black Dog Institute for COP26

Black Dog Institute

Overview

Climate change has been recognised the greatest threat to human health in the 21st century by the World Health Organization (1). Although the physical health impacts have been a predominant focus, there is growing evidence for its negative impact on population mental health and wellbeing (2, 3). Incidence of bushfires, droughts, floods, and other extreme weather events is increasing in Australia as a result of the changing climate, damaging communities and livelihoods, and causing associated psychological distress. Notably, for every one person who experiences physical injury as a result of a natural hazard, forty will experience psychological impacts (4). Although psychological distress will resolve for some people, a significant minority will develop ongoing mental health problems (5, 6).

There is increasing concern about the indirect consequences of climate change on mental health (7, 8). Most notably, many young people report experiencing climate change-related anxiety (8, 9) due to the threat of irreversible ecological damage and a potentially uninhabitable physical environment. Further research on the relationship between climate change and mental health should be a key priority to understand the extent, complexity, and trajectory of climate associated mental health impacts.

The Intergovernmental Panel on Climate Change's 2021 AR6 report confirmed that Australia has already warmed by 1.4°C since the early 1900s (10). The mental health effects of climate change will become more devasting with further warming as the severity and frequency of natural hazards increases. We recommend the following strategies to mitigate the negative mental health impacts of climate change.

Short term strategies:

1. Take immediate climate action
2. Initiate population data collection on mental health outcomes following climate events
3. Provide support for disaster-affected communities and emergency service responders
4. Capitalise on digital and blended care

Long term strategies:

1. Upskill health professionals to recognise and respond to climate-related anxiety
2. Elevate traditional land management practices
3. Incorporate mental health into disaster preparedness planning
4. Invest in research to determine the full extent of mental health impacts

Direct impacts of disasters on mental health

Climate change is associated with increased frequency, complexity, unpredictability, and severity of extreme weather events. A strong body of evidence demonstrates that living through a disaster can lead to elevated rates of anxiety, depression, PTSD, sleep disruption and suicidal ideation (9). Estimates suggest that between 25-50% of people exposed to disasters will experience immediate negative mental health impacts (6). For most people, these effects will resolve over time, but estimates suggest as many as 10-20% may experience post-traumatic stress disorder in the year following the disaster (10, 11). For example, long term research after the Ash Wednesday bushfires in South Australia showed that the mental health impact could still be detected in the children of affected families twenty years after the fires (12).

Risk of long-term mental health issues as a result of direct exposure to disasters is heightened amongst:

- People at risk of repeat exposure to disasters including first responders and emergency service workers on the frontline (15)
- Communities at greater risk of infrastructure damage, societal disruption, and loss of livelihoods, such as rural areas of Australia (16)
- Children who are likely to be more adversely psychologically impacted by traumatic experiences than adults (17, 18)
- People who have pre-existing mental health issues (11, 19)

In addition to disaster exposure, emerging research indicates that exposure to the incremental impacts of climate change such as more frequent heat waves and rising average temperatures may also increase the risk of mental ill health. One large scale study of 2 million US residents found that the risk of mental illness increases with consistent exposure warmer temperatures (20). Increased ambient temperatures may also be associated with greater mental-health-related emergency department presentations (21, 22), and increased suicide rates (23), and increased aggression and violence (24).

Indirect impacts of climate change on mental health

We know that climate change is also affecting mental health and wellbeing amongst people who have not been directly exposed to extreme weather events. People are becoming concerned about the environmental, political, and health effects of climate change, with many feeling intense emotions including uncertainty, anxiety, grief, and hopelessness about the future (8). This phenomenon, termed climate anxiety, appears to be distressing for a substantial minority of the population, with 17-27% indicating that climate anxiety impacted their ability to function (25). Young people are thought to be disproportionately affected by climate anxiety (25, 26). One Australian survey found that 80% of 14-23 year old students were somewhat or very anxious about climate change (27).

Unequal impacts of climate change on mental health

Climate change is also exacerbating health inequity (2, 22). We know that climate change will have a disproportionate impact on populations who already have greater prevalence of mental illness, including Aboriginal and Torres Strait Islander people, people with existing chronic illness, people with mobility impairments, pregnant and postpartum women, lower SES communities, migrants, and rural and remote communities (2, 19).

In Australia, First Nations communities are likely to be at particular risk. Aboriginal and Torres Strait Islander people have a unique connection to the land, and climate change threatens not only their physical home on that land, but their role as caretakers of the land and access to traditional practices and healing. This includes access to healthy bush tucker along with access to country and related cultural activities (28).

Australians living in rural and remote communities are also at greater risk because their livelihoods often depend directly on the viability of natural environment. In particular, the longevity of jobs in agriculture, fishing, and tourism will be impacted as floods, drought, coastal erosion, bushfires and other extreme weather events as they become more frequent (28). Communities who rely on the land for income and survival have greater vulnerability to mental health issues, as financial stress intensifies. For example, the mental health of farm owners in the Murray-Darling basin is correlated with fluctuating value of their farms (29).

Further, people in rural and remote communities may choose or be forced to leave their homes due to environmental degradation threatening their safety, health, and/or livelihoods (30, 31). We know that involuntary migration and displacement and the associated economic challenges can cause significant stress and increase the risk of mental illness (32). Migration due to loss of home is associated with greater stress (8).

Short-term strategies

1. Take immediate climate action

Mitigating the effects of climate change will lessen the mental health burden on all Australians and reduce the threat of an increased frequency of natural disasters. The Australian government agreed to reducing carbon emissions to net-zero by 2050 under the Paris Agreement in 2015 and has made some significant steps towards achieving this (33). Black Dog Institute recommends that Australia accelerates progress towards reducing carbon emissions to lessen the distress and mental health impacts associated with the changing climate.

2. Initiate population data collection on mental health outcomes following climate events

Agile data collection should be enabled now in order to measure and assess the effects of climate change on mental health of the community over time. Black Dog Institute recommends that additional population-level data systems are needed to ensure data on stress, anxiety, and depression in response to climate and disaster events. We recommend that this data be stratified to provide information on the needs of particularly vulnerable communities, such as those with mental health disability, older people, those with previous trauma and Aboriginal and Torres Strait Islander status; and young children, adolescents and families where response to climate events is higher.

3. Provide support for disaster-affected communities and emergency service responders

Protective, preventative and early intervention programs are needed to ameliorate the effect of climate-related events. Improving the mental health support available to disaster-affected communities and emergency service responders is essential for these vulnerable groups to get the help they need, when they need it. This could include coordinated and systematic outreach responses to screen and treat those most directly affected by the disaster can help identify those in need of care. Outreach programs could also be provided to service providers and primary health networks to help them support affected individuals and communities, where wraparound services can cope with increased demand. Black Dog Institute's Bushfires Support Service for emergency service workers and their families is an example of an existing service online service with applicability to other climate-related disasters. This existing infrastructure can be tailored to at risk population groups and implemented at scale.

4. Capitalise on digital and blended care

Digital and blended care approaches to mental health can bridge the gap where psychological treatment is not readily accessible. Preventative programs that capitalise on digital and blended care and self-help should be employed because they are effective, easy to use, available across rural and remote areas. These approaches free up therapists to deliver one-on-one interactions with those in crisis or severely affected by events. Black Dog Institute recommends increased investment and greater policy focus on existing digital and blended care options for mental health support, such as our own Online Clinic which provides mental health assessment and triage. Black Dog Institute also recommends that the barriers to access to digital care are addressed such as improving broad access to stable internet, providing incentives for consumers and service providers, and programs to increase digital literacy.

Long-term strategies

1. Upskill health professionals to recognise and respond to climate-related anxiety

As disasters increase in intensity and frequency, the demand for trauma support will increase. Further, youth experiencing climate anxiety may require mental health assessment and care. Physicians are the first point of contact for patients with mental health conditions and the most common providers of mental health services, meaning that additional support will be required to meet demand. Black Dog Institute recommends increased training and upskilling for GPs and mental health professionals to enable them to recognise and respond to symptoms of post-traumatic stress and climate-related anxiety.

2. Elevate traditional land management practices

Global research on Indigenous peoples generally indicates that climate change threatens the mental health and stability of people, as their connection to place and culture is disrupted (8). The integration of traditional cultural practices and caring for country can help to improve the sustainability of existing land management practices, while also positively impacting the social and emotional wellbeing of First Nations peoples (34). We recommend investment in preservation of the natural environment through National Parks, the inclusion of Aboriginal and Torres Strait Islander leadership in land management and identified positions for Aboriginal and Torres Strait Islander staff. In addition, investment in research in partnership with Aboriginal and Torres Strait Islander communities and leaders is needed to understand the extent of the impact of climate change on wellbeing in these communities.

3. Incorporate mental health into disaster preparedness planning

Disasters and hazards will continue to test Australians in various ways over the coming years. Although Australia has pre-existing preparedness plans for natural disasters and emergencies, they not do not focus on mental health consequences of these events. The importance of preparedness and buffering population mental health for resilience against the unknown has been further emphasised as a result of COVID-19. The Black Dog Institute recommends that mental health care needs to be more strongly integrated into future disaster planning, and that provision of services needs to be strengthened for communities at higher risk. Community networks should be targeted and supported to assist in disaster planning and dissemination of information and resources.

4. Invest in research to determine the full extent of mental health impacts

We do not have sufficient research to fully understand the extent to which climate change is impacting levels of common mental health disorders over the long term, particularly amongst young people, rural and remote communities, First Nations peoples and those on the frontline of natural disasters. The Black Dog Institute recommends increased funding for research into the long-term effects of climate change on mental health. This research should be interdisciplinary and collaborative in nature and include the voices of people with a lived experience of climate change impacts (3). We must invest in understanding the consequences further, as existing evidence suggests that adverse mental health effects are already happening, and are likely to worsen without action.

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For more information

Government and Stakeholder Relations Advisor | Black Dog Institute
Phone: 0487 770 889
Email: policy@blackdog.org.au

Black Dog Institute