Mental Health in a Changing Climate

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Disclosure Information

- No disclosures to declare
Objectives

- Exploration of how environmental disasters resulting from climate change impact the mental health of a population
- Overview of the inequitable burden of climate related mental health disorders
- Approaches to surveillance and monitoring of the mental health effects of climate change
- Overview of the mental health effects of climate-related displacement
- Navigating new climate and mental health terminology
- Exploration of targeted interventions to support mental health and well-being
Mental and psychosocial health

Defining key terms
The Mental Health Continuum

- Excelling
- Thriving
- Surviving
- Struggling
- In Crisis
Climate Change Affects Psychological and Social Health

Place and culture shape our experiences of health
Climate change impacts to mental health

An overview of the current evidence
Key findings in the in the Mental Health and Well-Being Chapter from the report Health of Canadians in a Changing Climate: Advancing our Knowledge for Action include:

- Mental health impacts of climate change may include:
  - exacerbation of existing mental illness such as psychosis;
  - new-onset mental illness such as post-traumatic stress disorder;
  - mental health stressors such as grief, worry, anxiety, and vicarious trauma;
  - a lost sense of place, which refers to the perceived or actual detachment from community, environment, or homeland;
  - disruptions to psychosocial well-being and resilience;
  - disruptions to a sense of meaning in a person’s life;
  - general distress;
  - higher rates of hospital admissions;
  - increased suicide ideation or suicide; and,
  - increased negative behaviours such as substance misuse, violence, and aggression
Overview of Climate Change Impacts on Mental Health

<table>
<thead>
<tr>
<th>HEALTH IMPACT OR HAZARD CATEGORY</th>
<th>CLIMATE-RELATED CAUSES</th>
<th>POSSIBLE HEALTH EFFECTS</th>
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<tbody>
<tr>
<td>Mental health</td>
<td>• Increased frequency and severity of precipitation (such as hurricanes, flooding, ice storms)</td>
<td>• Post-traumatic stress disorder (PTSD)</td>
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<td></td>
<td>• Droughts</td>
<td>• Anxiety</td>
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<td></td>
<td>• Wildfires</td>
<td>• Worry and fear</td>
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<td>• Extreme temperatures</td>
<td>• Depression</td>
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<td></td>
<td>• Decreased food and water security</td>
<td>• Stress</td>
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<td></td>
<td>• Melting permafrost</td>
<td>• Vicarious trauma</td>
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<td></td>
<td>• Sea-level rise</td>
<td>• Recovery fatigue</td>
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<td></td>
<td>• Gradual warming</td>
<td>• Suicide ideation</td>
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People do not need to be directly exposed to a flood to experience poor mental health outcomes.

A 2017 study showed that psychological effects were highest among respondents directly affected by flooding, with PTSD being the most commonly reported impact (36.2%), followed by anxiety (28.3%), and depression (20.1%).

Those who were disrupted by the flood, but who had not directly experienced flooding also experienced PTSD, anxiety, and depression related to the flood event.
Health Equity

Exploring the inequitable burden of climate related mental health disorders
Determinants of health and intersectionality
Some populations are at greater risk to the mental health effects of climate change

- Climate change disproportionately affects the mental health of specific populations, including:
  - Indigenous Peoples,
  - Women,
  - Children and youth,
  - Older adults,
  - People living in low socio-economic conditions, including the homeless,
  - People living with pre-existing physical and mental health conditions,
  - Certain occupational groups such as land-based workers (e.g. farmers, conservationists, foresters, etc.), and first responders.

Evidence suggests that women tend to be more prone to anxiety, worry, and PTSD related to a changing climate. In particular, women tend to be in caregiving roles, which are typically undervalued and underpaid, and, in these roles, women are at greater risk of experiencing compassion fatigue, particularly during periods of exposure to climate hazards.
Surveillance and monitoring of the mental health effects of climate change

Key considerations
Surveillance and Monitoring

<table>
<thead>
<tr>
<th>CLIMATE HAZARD</th>
<th>POPULATIONS OF CONCERN</th>
<th>POTENTIAL MENTAL HEALTH OUTCOMES</th>
<th>INDICATORS AND MEASUREMENT TOOLS</th>
</tr>
</thead>
</table>
| Extreme Weather Event (flood, hurricane, drought, mudslides, etc.) | - Gender (Female)  
- Sex (Female, particularly pregnant women)  
- Age (children, infants, older adults)  
- First Nations, Inuit, Métis  
- Race and ethnicity (non-Caucasian, non-white)  
- Immigrants  
- People with pre-existing health conditions  
- People with low-socioeconomic status  
- The under and non-insured (health care and home insurance)  
- The under-housed and homeless  
- Outdoor laborers  
- First responders | - Post-traumatic stress disorder (PTSD)  
- Depression (including major depressive disorders)  
- Anxiety  
- Suicidal ideation  
- Aggression  
- Substance misuse  
- Violence  
- Survivor guilt  
- Vicarious trauma  
- Altruism  
- Compassion  
- Post-traumatic growth  
- Other | - Surveys  
- Patient Records  
- Monitor emergency department visits after extreme weather events for an increase in patients reporting mental health problems or illness.  
- Review of new prescription use for mental health and behavioral disorders after an extreme weather event  
- Interviews |

1Table 1 Adapted from: Hayes K, Poland B. Addressing mental health in a changing climate: Incorporating mental health indicators into climate change and health vulnerability and adaptation assessments. *Int J Environ Res Public Health*. 2018;15(9). doi:10.3390/ijerph15091806
Key Considerations and Challenges to Data Collection

- attributing environmental hazards to climate change and then attributing mental health outcomes to these hazards;

- isolating the mental health outcomes related to climate change from other compounding life stressors;

- measuring some types of mental health impacts and compounding stressors (e.g., the difficulty of measuring compounding stressors of those experiencing colonialism, intergenerational trauma, and connections to the land, such as many Indigenous Peoples);

- studying and reporting on mental health indicators when mental health can be understood differently among diverse populations; and,

- under- or over-reporting of mental health outcomes related to climate change.
Climate Displacement

An overview of distress related to displacement from climate-related environmental changes
Displacement and Distress

- Displacement related to climate change - 25 million to 1 billion by 2050, however 200 million most frequently cited projection.\(^1\)
- International Organization for Migrations reports displacement from environmental disasters more common now than displacement from violence and conflict.\(^2\)
- Gibson et al (2019) coping with climate distress in Tuvalu.\(^3\)
  - Distress related to loss of culture
  - Financial hardship
  - Family conflict
  - Impacts to future generations
- Experiences of racism, discrimination.\(^4\)
- Trapped populations less able to migrate due to social, political, or economic conditions.\(^5\)
- Positive psychosocial outcomes if voluntary, consented, last resort, planned, and improves standard of living.\(^6\)
Displacement related to climate change is an important issue, particularly for Indigenous communities.

The related psychological and social effects can include: increased emotional trauma, homelessness, substance misuse, disrupted cultural practices, and discrimination.

The 2011 Manitoba flood displaced residents of Lake St. Martin First Nation for over six years (approximately 7% of the evacuees never returned home, reportedly many cases were due to homelessness and suicide).
Navigating new terminology

Common reactions to the climate crisis
Pain for the world is a normal, healthy response to a world in trauma.
Navigating the New Terminology

- Ecoanxiety
- Ecogrief
- Ecoparalysis
- Ecoguilt
- Solastalgia
Awareness

• Eco-anxiety: “the range of potential sufferers: anyone who knows about climate change – in other words, given the reach of communications technology, almost everyone” (Clayton, 2020)
Is action the antidote to ecoanxiety?

In short: there’s no ‘one size fits all’ approach to addressing our emotional responses to climate change
Ecological grief and anxiety: the start of a healthy response to climate change?

Ecological grief and anxiety are reasonable and functional responses to climate-related losses.

Population-level emotional distress, anxiety, and grief are increasing.

Urgent responses are needed from clinicians, public health practitioners, families, researchers, educators, and policy-makers.

Responses that reduce emotional suffering associated with climate change can include...

- Following a health equity approach to resources and responses to build resilient mental health systems.
- Increasing training for mental health professionals on climate change and health.
- Focusing on families.
- Enhancing clinical assessments and support.
- Increasing social prescribing of activities that enhance environmental, physical, and mental health.
- Harnessing already-proven individual and group therapy strategies.

What is needed to strengthen and support responses?

- Accessible, safe spaces for exploring emotional reactions.
- Political will to ensure funding for strategies and supports.
- Ongoing research to promote healing and resilience.

Lancet Planetary Health, 2020
Coping and Adaptation

Exploration of targeted interventions to support mental health and well-being
Factors Influencing Adaptation

Social capital and a sense of community protect mental health in a changing climate. Social capital refers to the networks and resources of support, and a sense of community refers to feelings of belonging. Both social capital and a sense of community are of paramount importance in post-disaster recovery, even when compared with economic or other types of assistance.

Coping at the individual level

- Sense of agency
- Sense of meaning
- Social connections
Coping at the community level

5 Ways Communities Are Coping With Climate Anxiety

From action-oriented toolkits to talk therapy and meditation, these responses facilitate recovery, hope, and activism.

- Psychological first aid
- Mental health first aid
- Peer-to-peer support

Source: https://www.yesmagazine.org/environment/2018/08/22/5-ways-communities-are-coping-with-climate-anxiety/
Policy and Practice Interventions

HOW TO SUPPORT MENTAL HEALTH AND WELL-BEING FROM CLIMATE IMPACTS

Though there are no one-size fits all options to addressing mental health needs, there are a variety of ways mental health related to climate change impacts can be supported. Such as through:

POLICIES
- Improved access to, and funding for, mental health care
- Assistance to reduce economic strain from climate hazards

PRACTICES
- Developing climate resilience plans that address psychological and social well-being
- Conducting climate change and health assessments that examine the mental health effects of climate and adaptation options

MEDICAL PRACTICES
- Specific therapies, behavioural interventions or medications provided by mental health care professionals
- Distribution of resource guides to the public on the mental health effects of climate change

INDIVIDUAL PRACTICES
- Spending time in nature
- Connecting with community
- Engaging in active transportation to improve mood and enhance physical health

HEALTH OF CANADIANS IN A CHANGING CLIMATE
MENTAL HEALTH AND WELL-BEING CHAPTER
Co-Benefits of GhG Mitigation Activities on Mental Health

Active transportation can support physical and mental health while reducing greenhouse gas emissions.

Well designed greenhouse gas mitigation and adaptation actions to address climate change can produce significant health co-benefits, including benefits to mental health.

For example, increasing opportunities in a community for active transportation (e.g., walking, jogging, and biking) have been shown to reduce depression and improve moods.
Current Actions in Canada

- Programs that support broader mental health needs that are supportive for people experiencing distress related to climate change:
  - Wellness Together, PocketWell, Hope for Wellness Helpline

- HealthADAPT Program
  - Health Canada is building the capacity of health authorities in Canada to reduce risks from climate change, including those on mental health. For example, the Centre intégré de Santé et de services sociaux (CISSS) de Chaudière-Appalaches is leading a project to assess and support the health systems capacity of 2 CISSS pilot regions (Chaudière-Appalaches and Bas-Saint-Laurent) to prevent the negative impacts on mental health and psychosocial well-being of populations exposed to extreme climate events.

- National Adaptation Strategy
  - In December 2020, the Government of Canada committed to developing Canada’s first National Adaptation Strategy and Federal Action Plan. There are five Advisory Tables, including one on Health and Well-being that integrates climate change and mental health considerations.
International Actions

- Dedicating chapters on mental health in Government-led National Climate Change and Health Assessments
  - Canada (2022)
  - U.S.A (2016)
- Research leaders (Australia, U.S.A., Canada, UK)
- Professional Psychiatric Networks:
  - Climate Psychiatry Alliance (U.S.A, and Canada), UK Health Alliance on Climate Change
- Policy statements from health organizations:
  - American Association of Public Health policy statements related to climate change and mental health
    (Addressing the Impacts of Climate Change on Mental Health and Well-Being (apha.org))
- Briefing Papers for Policy Makers:
  - The impact of climate change on mental health and emotional wellbeing: current evidence and implications for policy and practice
  - Health in the Climate Crisis: A Guide for Health Leaders
  - Mental Health and our Changing Climate Impacts, Inequities, Responses
Novel Approaches

Network of Care: Climate Psychiatry Alliance
Training: International Transformational Resilience Coalition (ITRC) Workshops
Guidance: Emotional resilience toolkit for climate work
Nature-Based Therapies: Forest Bathing
Social-Environmental Prescribing: PaRX Park prescriptions
Group-based interventions
  • sUStain: Transforming climate concerns into Active Hope
  • Climate cafés
  • Good Grief Network
  • Transition Town – Heat and Soul groups
Spiritually-base interventions
  • One Earth Sangha
  • The Work that Reconnects (WTR)
  • Faith in the common good
Online forums
  • Eco-Anxious Stories
  • Project InsideOut
  • GenDread
Thank you

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References

1. Institute for Environment and Human Security of the United Nations University in 2015


