

### The emotional toll of climate change for persons with spinal cord injury

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Climate-emotion research highlights complex affective responses to the climate crisis and a relationship between climate-related emotion, psychological well-being, and health. [1]

While a vast body of literature is emerging in this area [2, 3, 4, 5, 6] there is a dearth of research investigating emotional responses to climate change of those living with spinal cord injury.

#### Climate-crisis: pathways to emotional distress



- Extreme weather events** (flooding, hurricanes, tornados, wildfires, drought) can lead individuals to experience related adverse emotions such as anxiety, depression, loss, stress, distress, grief, trauma and secondary stressors such as food insecurity, financial strain, pressure on family relationships, and health-related stressors. [2, 7]
- Adverse weather conditions** can compromise physical health causing psychological distress [3, 5] and can impact mental health directly such as the negative impact on mental health of hot days and heat waves [2, 3, 7] including increased suicide risk. [5] Air pollution is also associated with psychiatric disorders. [5] Increases in sea level may evoke fears of encirclement by the sea or anxiety and worry about the need to relocate. Deforestation has been shown to have negative psychological consequences [2] and emerging research has shown green space to have positive emotional impacts. [8] Displacement due to adverse weather conditions can cause a range of negative emotional responses because of loss in relation to community, livelihoods and sense of place. [3]
- Climate change and **the awareness of an existential threat** can illicit strong psychological responses which may be part of a healthy, adaptive response to the real risks that are presented. [1, 5]
  - Eco-anxiety** explains the emotional response experienced due to an awareness of the human-created climate crisis and while it can be disabling in and of itself, it can also have motivational aspects in support of climate action. [1, 9]
  - Ecological grief** occurs in response to witnessing ecological demise due to climate change. [1, 5] It is associated with a changed sense of place, loss of identity and a perception of lost control, and may be linked to depression and anxiety. [5] *Solastalgia* is a similar concept. [10]
  - Climate injustice** where countries that have contributed the least to greenhouse gas emissions are hit hardest by the environmental impacts of climate change can also result in diminished psychological well-being. [5]

#### What can psychologists do?

- Understand the disproportionate impact of climate change on persons with spinal cord injury and the unique experience of those affected. [11]
- For persons with spinal cord injury who have experienced climate-driven extreme weather events, forced migration, or adverse weather conditions a trauma-informed approach may be appropriate. [6]
- For persons with spinal cord injury who experience emotional reactions to the existential threat posed by climate change, recognise that strong emotional responses to climate change can be part of a healthy adaptive response to what is a real threat. Validating emotional response to climate change may offer therapeutic support. [9]
- Providing appropriate psychological support may allow persons with spinal cord injury to process and cope with emotional reactions to climate change in a healthy and constructive manner, promoting psychological and social resilience. [12]
- Undertake and advocate for reduced-carbon footprint or 'greener' clinical practice (e.g. telehealth, active transportation).



'Fig 1: Climate Emotions Wheel' from the Climate Mental Health Network [13]

ISCoS Special Interest Group Climate and Health is developing a Statement on Climate and Health for Persons with Spinal Cord Injuries. This will contribute to optimize the prevention, management and adaptation to the continued impact of climate change in this population.



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