COMMENTARY

Climate Change Psychological Distress: An Underdiagnosed Cause of Mental Health Disturbances

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The majority of climate change research and policy centers around the physical health effects of planetary degradation. The mental health impacts of climate change are just now starting to be elucidated and discussed more commonly among mental health providers and policymakers. There is a huge area of opportunity in primary care to discuss and address climate anxiety in patients, many of whom may not be forthcoming in discussing how climate anxiety is contributing to their mental health. (J Am Board Fam Med 2024;37:11–14.)

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The life-changing events of the last few years have taken a toll on the mental health of nearly every person alive today. Increases in depression and anxiety rates have been described around the globe, ^{1,2} and although the COVID-19 pandemic is a definite factor in this, a largely ignored and increasing contributor to mental health disease burden is climate change. The physical health impacts of climate change have been well described, yet the mental health effects of climate change and how we can address them as primary care physicians is a newer area of research and attention.^{3,4}

Climate change psychological distress (CCPD), also known as climate anxiety, is defined as "a chronic fear of environmental doom...ranging from mild stress to clinical disorders like depression, anxiety, post-traumatic stress disorder and suicide." Symptoms are quite indistinguishable from "classic" forms of depression and anxiety and include panic attacks, loss of appetite, irritability, and insomnia; they can lead to maladaptive coping

strategies such as intimate partner violence and substance misuse.⁵ In 2005, philosopher Glenn Albrecht coined the term "solastalgia" by combining the words "solace," "desolation," and "nostalgia" to describe the phenomenon of distress through the lived experience of negatively perceived environmental change close to one's home. Many people alive today are experiencing solastalgia, although may not have the vocabulary yet to describe it as such. The most recent data from Yale's biannual survey around public perceptions of climate change found that 2/3 of Americans are now 'very or somewhat worried' about climate change, and almost half (44%) have personally experienced the effects of climate change.⁷ Although being worried about climate change does not necessarily equate to anxiety or depression, it does highlight a relatively new and significant cause of potential mental health disturbance. Mental health distress and post-traumatic stress due to direct effects of climate change can be quite obvious to identify in patients, for example someone losing their home to a wildfire, but CCPD is a different phenomenon that can affect those not yet directly impacted by climate change. Because of its insidious nature, it is important that primary care providers be aware of its prevalence and screen for it in identifying emotional distress during a visit.

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The effects of CCPD on youth and historically disadvantaged groups are particularly concerning. The largest international survey regarding CCPD in youth to date encompassed 10,000 respondents aged 16 to 25 years in 10 countries.8 The results found that nearly 60% of respondents were "very worried" or "extremely worried" about climate change, and 45% of participants said their feelings about climate change impacted their daily lives. It is well described that low-income communities and communities of color are more climate vulnerable due to many factors such as systemic racism, underlying health conditions, etc. These disadvantaged groups are much more likely to have health impacts due to the effects of climate change, and thus may have higher rates of climate anxiety. A recent study found that Hispanics/Latinos (21%) were significantly more likely than other groups to say they would be interested or are already having discussions with a therapist or counselor about their feelings about global warming.9

Primary care providers play a vital role in identifying and treating mental health concerns; thus it is imperative that we educate ourselves on the issues that impact our patients the most. Mental health screening is already recommended for depression and anxiety in adults and adolescents 12 and older (Grade B).¹⁰ Multiple screening tools exist, with the most common being the PHQ-2 and GAD-2. Scientists from the Yale Program on Climate Change Communication have modified the PHQ-2/GAD-2 to create a 4-question instrument to measure Climate Change Psychological Distress scale, they deemed these modified measures the PHQ-2-Climate and GAD-2-Climate respectively.9 The measures include the following questions: "Over the past 2 weeks, how often have you been bothered by the following problems?" (1) Feeling nervous, anxious, or on edge because of global warming, (2) Not being able to stop or control worrying about global warming, (3) Little interest or pleasure in doing things because of global warming, and (4) Feeling down, depressed, or hopeless because of global warming. The response options included: 0 = "Not at all," 1 ="Several days," 2 = "More than half the days," and 3 = "Nearly every day." Authors found that those scoring 3 or higher on this measure could have high levels of CCPD.

Although not advisable to replace the standard PHQ-2/GAD-2 with this modified instrument for all patients, it does demonstrate that if a patient

screens positive on these instruments, the astute clinician should start including CCPD as one of the potential causes of mental distress, particularly among young people and persons of color. Although patients may volunteer CCPD concerns on their own, many, in particular adolescents, may withhold or not quite have the words to describe it. For most people it is much easier to talk about more straightforward causes of anxiety and depression, such as relationship or job stress, than larger existential crises such as the rapidly declining health of our planet. In the Marks et al. youth survey around half (48.4%) of respondents disclosed that when they had shared feelings about climate change with others they had been dismissed or ignored.8 The primary care office may be one of the only safe spaces for a person to open up about such concerns, thus it is important to consider asking more direct questions.

Following is a suggested framework (MAP) that can provide a "map" for successful management of CCPD in a brief primary care office visit.

- 1. **Mental health screen**. Using standard PHQ-2/GAD-2, following standard guidance for a more indepth screen if patient is positive on either of these.
- 2. Ask pointed questions. If appropriate to the situation, a clinician could ask the patient to elaborate on the cause of their symptoms if the patient is willing by asking more direct questions such as "Do you have any worries about the health of the planet?" Patients may not always be willing to divulge this information due to the reasons stated above, so sometimes direct questions may be helpful and prudent.
- 3. Provide resources/Plan for follow-up. While medication, therapy, and other treatment modalities may be appropriate components of a treatment plan for CCPD, patients should be encouraged to channel their feelings into tangible actions, particularly at the community level. A recent *Nature* article describes the propensity for providers to focus on symptom-based coping strategies rather than initiatives to reduce anxiety root causes. This can be counter-productive and even harmful, for if there are no attempts at reducing the underlying drivers of CCPD, symptoms will always return, strengthening the anxiety-based neural feedback loop. There are multiple resources that could be shared with a patient in a brief visit:
 - a. The Good Grief Network has a 10-step program for building resilience and empowerment as well as other resources. 13
 - b. Climate Psychology Alliance North America also has an excellent resources and toolkit section, as well as a Climate-Aware Therapist directory.¹⁴

c. Two excellent resources for empowering individuals to take steps towards climate activism are Project Inside Out (PIO) and Project Drawdown.^{15,16} PIO helps individuals figure out their changemaker archetype so that they may effectively channel their abilities towards climate activism, whereas Project Drawdown gives concrete examples of climate solutions that individuals can follow and support.

Emphasis should be on a healthy balance of climate-aligned action and also scheduled mental health "breaks" from media and climate change related topics. It is also important to acknowledge with a patient that it is normal to go through burnout as an activist or someone who cares deeply about social issues, and some of the best tools to combat this are self-care and finding support through community.¹⁷ Assessing suicidality among any patient who screens high on their GAD/PHQ is standard practice, and is extremely important to screen for among anyone who identifies climate-related concerns as a mental health trigger. Given the grim and largely uncontrollable nature of climate-related statistics and news stories, suicide risk is of particular concern. Although the subject is difficult to study, research suggests that unmitigated climate change could result in a combined 9,000 to 40,000 additional suicides across the United States and Mexico by 2050¹⁸; thus setting up a crisis and follow-up plan for any patient with CCPD is critical.

Climate change is a unique and complex issue that will continue to cause distress for many of our patients for the duration of their lifetime, and is likely to worsen in the coming years. Our patients need to know that they have a safe and validating space to talk about mental distress related to climate change. There are many excellent resources available for clinician education on this topic, as many of us were not taught about this in medical school. As Family Medicine providers, our holistic training and front-line experience gives us the best "lens" through which to see the root causes of disease and distress. We cannot heal climate anxiety in a brief office visit, but we can help our patients by providing support and resources to channel it into healing actions.

To see this article online, please go to: http://jabfm.org/content/37/1/11.full.

References

 COVID-19 pandemic triggers 25% increase in prevalence of anxiety and depression worldwide. Accessed

- March 21, 2022. Available at: https://www.who.int/news/item/02-03-2022-covid-19-pandemic-triggers-25-increase-in-prevalence-of-anxiety-and-depression-worldwide.
- Vahratian A. Symptoms of anxiety or depressive disorder and use of mental health care among adults during the COVID-19 pandemic—United States, August 2020–February 2021. MMWR Morb Mortal Wkly Rep 2021;70.
- Obradovich N, Migliorini R, Paulus MP, Rahwan I. Empirical evidence of mental health risks posed by climate change. Proc Natl Acad Sci USA 2018;115: 10953–8.
- 4. Dodds J. The psychology of climate anxiety. BJPsych Bull 2021;45:222–6.
- North CS, Kawasaki A, Spitznagel EL, Hong BA. The course of PTSD, major depression, substance abuse, and somatization after a natural disaster. J Nerv Ment Dis 2004;192:823–9.
- Albrecht G, Sartore GM, Connor L, et al. Solastalgia: the distress caused by environmental change. Australas Psychiatry 2007;15 Suppl 1: S95–8.
- Leiserowitz A, Maibach E, Rosenthal S, et al. (2023). Climate change in the American mind: beliefs & attitudes, spring 2023. Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.
- 8. Marks E, Hickman C, Pihkala P, et al. Young people's voices on climate anxiety, government betrayal and moral injury: a global phenomenon. Social Science Research Network 2021.
- 9. Uppalapati S, Ballew M, Campbell E, et al. (2023). The prevalence of climate change psychological distress among American adults. Yale University and George Mason University. New Haven, CT: Yale Program on Climate Change Communication.
- 10. A and B Recommendations: United States Preventive Services Taskforce. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/recommendation-topics/uspstf-and-b-recommendations.
- Baudon P, Jachens L. A scoping review of interventions for the treatment of eco-anxiety. IJERPH 2021;18:9636.
- 12. Fyke J, Weaver A. Reducing personal climate risk to reduce personal climate anxiety. Nat Clim Chang 2023;13:209–10. Available at: https://doi.org/10.1038/s41558-023-01617-4.
- 13. Good Grief Network: Available at: https://www.goodgriefnetwork.org/.
- 14. Climate Psychology Alliance North America: Available at: https://www.climatepsychology.us/climate-therapists.
- Project Inside Out: Available at: www.projectinsideout. net.

- 16. Project Drawdown: Available at: www.drawdown. org.
- 17. Activist Handbook, section on Available at: Burnout: https://activisthandbook.org/wellbeing/ burnout.
- 18. Burke M, González F, Baylis P, et al. Higher temperatures increase suicide rates in the United States and Mexico. Nature Clim Change 2018;8:723-9.
- 19. CDC Climate and Health Program: Available at: https://www.cdc.gov/climateandhealth/default.htm.