YOUTH MENTAL HEALTH and the CLIMATE CRISIS

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No disclosures.
CLIMATE CHANGE IS ALSO A MENTAL HEALTH EMERGENCY

1. YOUNG PEOPLE ARE AT GREATEST RISK

2. “CLIMATE ANXIETY” IS NOT A FORM OF MENTAL ILLNESS

3. CLIMATE CHANGE, CLIMATE ACTION AND CLIMATE EMOTIONS ARE RELATED
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DIRECT EFFECTS (e.g. HEAT, AIR POLLUTION)

EFFECTS MEDIATED THROUGH CLIMATE-RELATED TRAUMA

CLIMATE CHANGE, CLIMATE ACTION AND CLIMATE EMOTIONS ARE RELATED

TAKE HOME POINTS
DIRECT EFFECTS on MENTAL HEALTH: HEAT

- Heat impacts sleep, cognition, mood
- Heat reduces learning and academic achievement
- Thermoregulation impaired at baseline in patients with mental illness
- Psychotropic meds further impair thermoregulation
HIGHER TEMPERATURES CORRELATED WITH SYMPTOM SEVERITY

DIRECT EFFECTS on MENTAL HEALTH: HEAT
DIRECT EFFECTS on MENTAL HEALTH: AIR POLLUTION

- Chronic air pollution linked to increased rates of anxiety and depression, lower IQ, dementia
- Episodic poor air quality linked to pediatric crisis presentations

(Brokamp 2019, Szyszkowicz 2020)
# Climate-Related Trauma: Exposures & Outcomes

<table>
<thead>
<tr>
<th><strong>Acute Exposure</strong></th>
<th><strong>Chronic Exposure</strong></th>
<th><strong>Vicarious Exposure</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hurricanes, floods, wildfires, extreme heat</td>
<td>Drought, land loss, forced migration, civil conflict</td>
<td>Climate awareness, news media, social media</td>
</tr>
</tbody>
</table>

- PTSD
- Anxiety and depression
- Substance use disorders
- Interpersonal violence
- Suicide
- Complex trauma
- Existential distress
- Grief
- Loss of identity
- Suicide
- “eco-anxiety”
- Fear, dread, despair
- “Pre-TSD”
- Disaffection, rage
- Solastalgia
CLIMATE CHANGE IS A MENTAL HEALTH EMERGENCY, TOO

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CLIMATE CHANGE, CLIMATE ACTION AND CLIMATE EMOTIONS ARE RELATED
VULNERABILITY INHERENT TO YOUNG PEOPLE

- **IMMATURE PHYSIOLOGY, DEVELOPMENTAL VULNERABILITY**
- **DEPENDENCE ON SOCIAL SYSTEMS AND ADULT CAREGIVERS**
- **OUTSIZED IMPACT OF ADVERSE EVENTS IN CHILDHOOD**
- **TEMPORALITY**
- **PSYCHOLOGICAL VULNERABILITY: POWERLESSNESS, ADULT BETRAYAL**
IMPACTS ARE UNEVEN DUE TO SYSTEMIC INEQUITIES

- Increased exposure to extreme weather events & related trauma
- Higher proximity to amplifying hazards & related trauma
- Lower infrastructure and system resilience, including mental health care system
- Lower air quality, heat islands, decreased access to green space
2021 GLOBAL SURVEY OF CLIMATE ANXIETY IN YOUTH

Hickman et al 2021

FEELINGS OF BETRAYAL AND ABANDONMENT BY GOVERNMENTS AND ADULTS LINKED WITH GREATER CLIMATE DISTRESS

- 68% anxious
- 58% angry
- 57% powerless
- 51% guilty
I think it’s different for young people. For us the destruction of the planet is personal.”

- 16-year-old study participant

84% People have failed

77% The future is frightening

58% Humanity is doomed

57% I won’t have same opportunities as my parents

57% My family’s security will be threatened

43% Feelings about climate change affect my daily life and functioning

41% I am hesitant to have children

Hickman et al
2021
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This young koala has a mental health problem.
SUPPORTING YOUTH (and adults) WITH CLIMATE DISTRESS

• “If it’s mentionable, it’s manageable.”
• Be curious, accept strong feelings, avoid minimizing
• Monitor dose and sources of media
• Goal is not eliminating or “treating” anxiety, but enhancing self-efficacy and engagement
• Manage adult anxiety, take adult action
• Encourage collective action
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Collective action (but not individual action) may attenuate association between “climate anxiety” and depressive symptoms.

SCHWARTZ et al 2022

Climate change anxiety and mental health: Environmental activism as buffer

Sarah E. O. Schwartz1,2,3,4 - Laelia Benoit4,5 - Susan Clayton5 - McKenna F. Parnes1 - Lance Swenson1 - Sarah R. Lowe5
EMOTION-FOCUSED COPING
goal to improve negative feelings associated with a stressor

PROBLEM-FOCUSED COPING
goal to solve the source of stress

(OJALA 2012)
**EMOTION-FOCUSED COPING**
goal to improve negative feelings associated with a stressor

Less negative emotions
Less environmentally engaged

**PROBLEM-FOCUSED COPING**
goal to solve the source of stress

More environmentally engaged
More negative emotions

(OJALA 2012)
EMOTION-FOCUSED COPING
goal to improve negative feelings associated with a stressor

- Less negative emotions
- Less environmentally engaged

PROBLEM-FOCUSED COPING
goal to solve the source of stress

- More environmentally engaged
- More negative emotions

MEANING-FOCUSED COPING
drawing on beliefs, values, existential goals

- Less negative emotions
- More environmentally engaged

(OJALA 2012)
You don’t fight something like that because you think you will win.

You fight it because you have to.

Because surrendering dooms so much more than yourself, but everything that comes after you.

– Mary Annaïse Heglar

*Climate Change Isn’t the First Existential Threat*

Medium, 2019
TAKE HOME POINTS

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THANK YOU

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Angela Christofilou/The Independent
RESOURCES

FOR PROVIDERS

- Climate Psychiatry Alliance
- Climate Psychology Alliance North America

FOR PARENTS, CAREGIVERS, HUMANS

- AACAP Resource Center on Climate Change
- Talk Climate: https://talkclimate.org
- All We Can Save Project: www.allwecansave.earth
- Parenting in a Changing Climate by Elizabeth Bechard
- Not too Late by Rebecca Solnit and Thelma Young Lutunatabua
- Gen Dread (newsletter) and Generation Dread (book) by Britt Wray

FOR KIDS

- A kid's guide to climate change by NPR Life Kit (tweens+)
- All The Feelings Under the Sun by Leslie Davenport (tweens)
- Coco’s Fire by Jeremy Wortzel and Lena Champlain
SELECTED REFERENCES


Clayton S et al. Mental Health and Our Changing Climate Children and Youth Report. APA and ecoAmerica. 2023

EPA. Climate Change and Children’s Health and Well-Being in the United States. U.S. Environmental Protection Agency, 2023 EPA 430-R-23-001

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APHA’s Climate and Health Youth Education Toolkit:
Engagement through Education

Michelle Loosli, MS
Senior Manager, Center for Climate, Health and Equity, APHA
February 11, 2024
Climate Education in Schools
Why Partner Climate and Health
The Climate and Health Youth Education Toolkit
Why YOU?
Climate Education in Schools?
86% of K-12 teachers and 84% of parents of kids under age 18 believe that climate change should be taught.
Most students receive little to no climate education in school.
Why Climate *and* Health just work
Previous research has shown that providing information about the health consequences of climate change can increase climate change issue engagement and support for mitigation policies.
Solutions/Adaptations are tangible

Notably, a 2014 survey found that primary care physicians were rated the most trusted source of information about the health effects of climate change, with the CDC as the second most trusted...
The Climate and Health Youth Education Toolkit
Understanding the Exposure Pathway Diagrams

Visual Model | Cause and Effect Flooding & Human Health

- Climate Driver
- Environmental Condition
- Environmental Hazard
- Health Effect(s)

- Increased precipitation
- Flooding
- Contaminated water
- Water-borne infection

Center for Climate, Health and Equity
Activity Description:
• **Objective**: Create a comprehensive systems map using popsicle sticks and chalk lines.

Benefits:
• **Interactive Learning**: Encourages active participation and hands-on understanding.
• **Teamwork**: Fosters collaboration and communication among team members.
• **Visual Representation**: Helps create a clear visual representation of climate, exposure, and its connection to health.

As the climate continues to change, the complexity of its effects on health increases: one environmental condition can lead to multiple hazards (biophysical that may lead to lower health outcomes, while multiple climate drivers can interact to create different environmental conditions (See Sample Model).
“On a scale of one to ten I will rate the program nine, the program has effectively impacted the knowledge of the students regarding climate change and health. I have also had several students saying that they enjoyed it and learned something new about the environment that they didn’t already know about. I think the facilitators did a nice job with it!”

“The lesson plan is detailed and concise to help students understand the relationship between climate and health and mitigation and adaptation strategies to help them stay resilient.”

“The activities we had time to do went really well! The students had impressive responses for the prior knowledge activity and expanded health impacts to community health and community-wide impacts.”

“Wonderful Toolkit!”
Climate and Health Youth Education Toolkit

This new toolkit is designed to aid public health professionals in giving guest lectures on climate, health and equity at local high schools, summer camps or anywhere that students in grades 9-12 learn.

Download the toolkit (PDF).

Download a PowerPoint slide deck to help guide your presentation.

Watch webinar recordings:

- Engaging Youth In Climate and Health Solutions: Using APHA's Climate and Health Youth Education Toolkit
- Climate Justice and Children's Health: Inspiring Youth to Advocate for Climate Action

Read: APHA toolkit can help high schoolers make connection on climate and health (Public Health Newswire)

Check out APHA's Children's Environmental Health Committee to learn how this lesson plan was developed and to access supporting materials.

URL: APHA.org/Climate-Ed
CEH Website Resources

Climate and Health Lesson Plan Resources

- Customizable Email template for you to initiate contact with a local high school. Don’t have time to implement this lesson yourself but still want to be involved? Here are links to help us spread the word.
- Recruitment Flyer: If you know someone or an organization that might be interested in implementing this lesson plan, share this flyer with them and help us spread the word about Teaching Climate and Health!
- Social Media Recruitment Folder: Prefer to share on social media? Posts and captions are available for various social platforms, including Facebook, Instagram, and Twitter.

Lesson Plan Resources

- Everything you need to successfully implement the Climate and Health Lesson Plan for high school students.
- The Climate and Health Lesson Plan, in APHA’s Climate and Health Youth Education Toolkit, is 160 minutes, developed by a subgroup within the APHA Environment Section and adapted from NIEHS Climate Lesson Plans to connect climate to health.
- This one-pager contains all the resources hyperlinked in the lesson plan in an easy-to-find document.

After You Teach

- Youth Take Action Handout: Share this one-page with students after you have finished the lesson plan! This handout contains resources to help students get involved in the climate movement, from projects they can do at school to involvement on a grander scale.
- Ask the school for permission to post on social media tag @APHAEnvironment and use #ClimateChangesHealth.
- Complete the quick survey (https://bit.ly/1eq1tDd)

Additional Resources

- Tips from a High School Teacher: To make the most impact, we got advice from a current high school teacher to help us prepare for the classroom.
- Even if you can’t implement the lesson plan yourself, if you contact a school or teacher who would like to know more about taking climate action, give them this Schools for Climate Action Implications Guide ecoAmerica developed this guide for passing along to teachers or students interested in committing their school district to local climate goals.
Why YOU?
As the most trusted source of information on climate change and health, health professionals are well positioned to deliver these messages to the public.

*Lancet, November 2023*
Why engage the community

• Take your passion to the community
• Build trust between school and public health system
• Strengthen children and build resilience
• And…
Why engage the community
The Center for Climate Health and Equity is hosting a two-day virtual event bringing together APHA members and partners from across sections and disciplines to explore the intersectionality of climate, health and equity, build community, and advance collaborative work in the pursuit of a healthier, more equitable future.

apha.org/climate

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