ACA Task Force

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Fact Sheet

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Introduction

The American Counseling Association and its members stand in solidarity with professional counselors who work to address the mental health and wellness of individuals, families, and communities affected by the current and impending consequences of climate change. As members of a profession focused on fostering healthy development and wellness across the lifespan, counselors are uniquely equipped to empower clients to proactively address the mental health consequences of climate-related crises and the environmental issues related to climate change. This document introduces professional counselors to facts, actions, and resources that can aid them in addressing the diverse climate-change-based needs of clients and communities.

About Climate Crisis

According to NASA, climate change "affects the environment, natural resources, economy and other aspects of life in all nations of the world". Understanding the fundamentals of climate change can help counselors better conceptualize the impact it is currently having and will continue to have on our clients and communities.

In 1988, the Intergovernmental Panel on Climate Change (IPCC), was established by the United Nations Environment Programme (UNEP) and World Meteorological Organisation (WMO). The IPCC report (takeaways from IPCC) is one of the most reputable reports on climate change today. As counselors, we can also refer to the US Climate Assessment 2016, The Climate Reality Project, and NASA, just to name a few, to develop our baseline knowledge of climate change and the climate crisis. Additional resources include: The National Climate Assessment 2018 Overview; The Climate Reality Project "Climate 101"; and, also from the Climate Reality Project, five podcasts to inspire your thinking about the climate crisis.

Understanding the terminology around climate change and the climate crisis is also an important building block. We recommend learning about the shift of language to climate crisis (1, 2) as well as climate justice, which is the intersection of environmental justice and social justice as it relates to the climate crisis.

Climate Crisis and Mental Health

The impact of the climate crisis on mental health has been well-documented in a number of key reports, such as the IPCC report (Human Health, Chapter 8), US National Climate Report, the U.S Global Change Research Program, and ecoAmerica's Mental Health & Our Changing Climate, the Union of Concerned Scientists, the Climate Reality Project, the American Public Health Association, and the Psychological

Impact of Climate Change (see also 1, 2, 3, 4). Researchers predict a sharp rise in mental health issues resulting from the climate crisis in the coming years. These issues include depression and anxiety, posttraumatic stress disorder, substance abuse, suicide and outbreaks of violence. The elderly, the poor, and children were identified as being among those who will be most psychologically vulnerable.

Mental health issues may arise or become exacerbated from three possible directions. First, thinking about or considering the magnitude of the climate crisis may result in eco-anxiety, ecological grief (1, 2, 3, 4), or general despair and hopelessness. Second, pre-existing mental health vulnerabilities, such as depression and suicidality (1, 2, 3) may become more complicated by the climate crisis and/or climate related events or disasters. And third, it is important to consider the mental health issue caused by fire, flood, drought (1), high temperatures (1) displacement, etc.

Counselors need to be aware of the key resources and what they are saying about the mental health implications. We can also understand that there are many opportunities for counselors, psychologists, psychiatrists, social workers, and local governments to work together to tackle this issue and that such interprofessional collaboration is one of the keys to successful advocacy and resilience. Counselors hold expertise in trauma-informed approaches to resilience, disaster response and recovery, developmental and wellness approaches, and a humanistic connection to the lived experiences of clients. We also have a strong social justice lens that will be helpful in work with clients, our communities, and other professionals.

Climate Crisis and Disaster Mental Health

The American Counseling Association has a long established relationship with the American Red Cross as a model and partner in disaster response. In 2002, the International Federation of Red Cross and Red Crescent Societies (IFRC) established the Red Cross / Red Crescent Climate Centre. The Climate Centre supports National Red Cross and Red Crescent Societies in their work to reduce loss of life and damage to the livelihoods from climate change and extreme-weather events.

Counselors interested in disaster mental health will notice the typical process of "disaster-response-recovery" is changing to one of "disaster-response-recovery-disaster"; meaning that many communities face similar climate-related disasters within a much shorter period of time. Families and communities are also grappling with environmental justice issues that often surface following a disaster. Research shows that the psycho-social impact of climate-related disasters is profound. Counselors can also take a seat at the table and offer a trauma-informed lens to disaster preparedness, community resilience (1) and disaster recovery. Both ACA and the American Red Cross offer resources on disaster mental health for your continued learning.

Impact of Climate Crisis on Vulnerable Populations

As the climate changes, families, communities and lives are impacted. And as is true with so many other aspects of change, our most vulnerable neighbors (1)- individuals with low income, rural poverty, some communities of color, individuals with limited English proficiency and immigrant groups, Indigenous peoples, children, pregnant women, older adults, persons with disabilities, and persons with preexisting or chronic medical conditions - are most vulnerable to its impact (1) and are expected to suffer disproportionately from problems caused by a changing climate. Understanding the issue and engaging in climate advocacy on behalf of the people whose lives depend on a healthy planet is an important role counselors can play. The global climate is interconnected, both environmentally and socially.

What can counselors do? First, the U.S. Climate Resilience Toolkit is a comprehensive resource exploring community vulnerabilities and climate resilience efforts. Become familiar with the vulnerabilities in your area. Additionally, counselors should also explore how this vulnerability also intersects with health, social justice and environmental justice (i.e. climate justice) and mental health.

Be aware that people who are socially disadvantaged are at greater risk for negative health outcomes, which can be exacerbated by extreme heat, wildfire smoke and air quality issues, and vector-borne diseases. Counselors can advocate for greater access to emergency support and recovery resources for these communities. Likewise, counselors can advocate for and help vulnerable clients access health insurance and overcome barriers.

Climate Migration and Climate Refugees

Climate change is expected to trigger growing population movements within and across borders. People displaced by forced migration are already at high risk for mental health concerns. Factors such as increasing intensity of extreme weather events, sea-level rise and acceleration of environmental degradation are predicted to lead to a substantial rise in the scale of migration and displacement. Climate refugees and climate migration in the U.S. is already happening and expected to only rise as climate-influenced weather events and conditions such as drought and sea level rise make places uninhabitable. Losing your home is not only about the loss of a physical home, but also about an inability to live in a place, rebuild, or feel safe.

Counselors can help clients and communities work through place-based loss, grief, and trauma by addressing the seven factors of EcoWellness (1, 2, 3), engaging in climate-informed disaster response efforts, and contributing to conversations on community resilience. Particularly, clinicians might aid clients in their healing through maintaining spiritual connection to places lost and empower clients to foster new place-based connections. Counselors can also broaden their awareness of the climate-related factors influencing migration to the U.S. Being prepared to address the factors behind an individual's migrant or refugee status is critical to helping understand their lived experience.

Impact of Climate Crisis on Children

Children and youth are considered one of the vulnerable populations uniquely impacted by the climate crisis. In addition to growing up in a time when the climate crisis is a reality for them, they are also faced with a future that may feel uncertain and will need to be climate informed (1). When children lack access to safe supportive physical and social environments, development and learning are impacted. A recent meta analysis of children's learning confirmed that nature connection has a profound impact. Likewise, exposure to noise, crowding, and a lack of structure after natural disasters has been connected to attention difficulties and diminished relationships with adults. The health of our air, water, extreme weather events, and the resilience of social systems, impact children's health, mental health, development, cognitive functions, and coping (1).

What can counselors do? Know your community: Identify safe, clean green spaces for clients and families to visit and help them develop plans for spending time in them. Foster Ecowellness in families (1, 2). Strengthen families' and children's capacity to cope: Use counseling's strength or place-based approach to help families with children identify resources that can foster resilience in the event of a disaster. Keep resources available to assist parents in helping their children cope (1).

Allow children opportunities for active involvement in the process of recovery after a climate event. Children are not just victims, but persons with unique problem-solving skills that could be an asset after a disaster. For instance, a child's extensive knowledge of their neighborhood could be beneficial when developing plans for rebuilding and modifying community space. Children will sometimes see things that adults will not.

How Counselors Can Foster Coping & Resiliency

Understanding the impact of the climate crisis includes recognizing and validating experiences and stories of sense of place (1, 2, 3, 4) and place attachment, nature deficit (1), solistalgia, existential fears, trauma from disasters, eco-anxiety (1), ecological grief, anxiety and depression, traumatic responses, and other mental health concerns. Research has supported a trauma informed approach, rooted in ecotherapy (1, 2, 3), and inclusive of EcoWellness (1, 2), nature-connectedness (1, 2, 3), and resilience (1) to foster coping, adaptation, and well-being.

Research has also shown that nature access and connection (1, 2) facilitates positive physical, mental, emotional, and social outcomes. Professional counselors can proactively work with clients to include safe nature access and connection with nature as part of promoting health and wellness in treatment planning. Counselors can tap into trauma informed practices as well as resilience and post-traumatic growth. For clients who find strength in faith and spirituality, ecoAmerica offers extensive resources to connect conversations on the climate crisis to communities of faith. Recent headlines have underlined the severity of the climate crisis. It is important to stay attuned to the language and the stories in the media so as to understand and validate your clients' fears.

Counselors working with persons experiencing eco-anxiety can help foster positive nature connection with clients through practices of EcoWellness (1, 2, 3), which include building a sense of environmental agency. For example, professional counselors can help clients get in touch with local environmental groups or agencies for volunteer work., personal resources for recycling, composting, and living a greener lifestyle as part of their treatment plan. Finding one way to make a difference or to establish a sense of hope can be helpful.

Finally, take care of yourself. Counselors are exposed to the climate crisis in the same way as many clients. Be attentive to fostering emotional resiliency and engage in practices that will help mitigate your own climate burnout (1).

What's Next?

The American Counseling Association has numerous resources available to help you find your place in the discussion and action relating to the climate crisis and mental health. See the ACA Advocacy Competencies, the ACA Ethics Codes as they relate to the role of counselor as advocate, the ACA Strategic Plan and Advocacy, and ACA Governing Council Motion on Climate Change, as well as the ACA Voter Voice, because each and every voice matters. And be sure to check out the ACA Advocacy Tips.

What can one person do? Don't be "just one person"! Join others. If you are interested in training, consider becoming a member of the Climate Reality Leadership Corps. Get involved in climate adaptation and climate resilience efforts in your community. Bring mental health, trauma-informed, and disaster response knowledge to the table. Join a County Climate Coalition near you. Utilize U.S. Climate Resilience Toolkit, a comprehensive resource exploring community vulnerabilities and climate resilience efforts. See what is happening near you!

Consider joining an organization and work toward interdisciplinary solutions. Both Climate Psychology Alliance and International Transformational Resilience Coalition are solid options. Tap into resources, such as ecoAmerica, to help you connect the dots between the personal and professional. And finally, take care of yourself. Climate optimism and radical hope are two concepts that, when sought and integrated personally, help sustain the work. And there's always room for individual and collaborate contributions to research, publications, presentations, education and training.

REFERENCES

- Ahmed, M. (2019, June 20). How climate change exacerbates the refugee crisis and what can be done about it. *World Economic Forum*. Retrieved from https://www.weforum.org/agenda/2019/06/how-climate-change-exacerbates-the-refugee-crisis-and-what-can-be-done-about-it/?fbclid=IwAR3W3T-QLzEVWRPr3Uvwg1Z4UTDD5jP6dWjCw5wqAFzN5c9fxmKR4Y9GL-Y
- Almazan, J. U., Cruz, J. P., Alamri, M. S., Albougami, A. S. B., Alotaibi, J. S. M., & Santos, A. M. (2019). Coping strategies of older adults survivors following a disaster: disaster-related resilience to climate change adaptation. *Ageing International*, 44(2), 141-153.
- American Academy of Pediatrics. (n.d.). Climate change and children's health. Retrieved from https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/climate-change/Pages/Climate-Change-and-Childrens-Health.aspx
- American Counseling Association. (n.d.). Advocacy tips. Retrieved from https://www.counseling.org/docs/default-source/government-affairs/advocacytips.pdf?sfvrsn=6dcf532c_2
- American Counseling Association. (2013). Trauma and disaster mental health. Retrieved February 10, 2020, from https://www.counseling.org/knowledge-center/mental-health-resources/trauma-disaster
- American Counseling Association (2014). ACA Code of Ethics. Alexandria, VA: Author.
- American Counseling Association. (2018). Our vision and mission: ACA's strategic plan. Retrieved on February 11, 2020 from https://www.counseling.org/about-us/about-aca/our-mission
- American Counseling Association. (2018). Strategic framework. Retrieved from https://www.counseling.org/docs/default-source/aca-strategic-plan/aca-strategic-framework_wfinal80dc32f16116603abcacff0000bee5e7.pdf?sfvrsn=e7ca522c_2
- American Counseling Association. (2019). Governing council motions. Retrieved from https://www.counseling.org/docs/default-source/governance/governing-council-motions—2003-present-(january-2019).pdf?sfvrsn=9e5f552c_2
- American Counseling Association. (2019). Take action. Retrieved February 11, 2020 from https://www.counseling.org/government-affairs/actioncenter
- American Red Cross. (n.d.). Disaster preparedness: Disaster relief training. Retrieved February 10, 2020, from https://www.redcross.org/take-a-class/disaster-training
- APHA. (n.d.). Making the connection: Climate changes mental health. Retrieved from https://www.apha.org/~/media/files/pdf/topics/climate/climate_changes_mental_health.ashx
- Askland, H. H., & Bunn, M. (2018). Lived experiences of environmental change: Solastalgia, power and place. *Emotion, Space and Society*, 27, 16–22. doi: 10.1016/j.emospa.2018.02.003
- Atanasova, D., & Fløttum, K. (2019, May 30). Climate change or climate crisis? To really engage people, the media should talk about solutions. Retrieved from https://theconversation.com/climate-change-or-climate-crisis-to-really-engage-people-the-media-should-talk-about-solutions-118004
- Australian Psychological Association. (n.d.). Raising children to thrive in a climate changed world. Retrieved from https://www.psychology.org.au/getmedia/e8cda6ca-ecfe-42c7-8538-492950bac8ba/Raising-children-climate.pdf

- Australian Psychological Association. (n.d.). Talking with children about the environment. Retrieved February 10, 2020, from https://www.psychology.org.au/for-the-public/Psychology-topics/Climate-change-psychology/Talking-with-children-about-the-environment
- Balbus, J., Crimmins, A., Gamble, J. L., Easterling, D. R., Kunkel, K. E., Saha, S., & Sarofim, M. C. (2016) Ch. 1: Introduction: Climate Change and Human Health. In *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, D.C.: U.S. Global Change Research Program (pp. 25–42). doi:10.7930/J0VX0DFW
- BBC Northern Ireland. (2019, March 19). Climate change: Are you suffering from eco-anxiety? Retrieved from https://www.bbc.co.uk/ideas/videos/are-you-suffering-from-eco-anxiety/p073zgqd
- Benevolenza, M. A., & DeRigne, L. (2019). The impact of climate change and natural disasters on vulnerable populations: A systematic review of literature. *Journal of Human Behavior in the Social Environment*, 29(2), 266-281.
- Beard, C.B., Eisen, R. J., Barker, C. M., Garofalo, J. F., Hahn, M., Hayden, M., Monaghan, A.J., Ogden, N. H., & Schramm, P. J. (2016). Ch. 5: Vectorborne diseases. In *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, D.C.: U.S. Global Change Research Program (pp. 129–156). doi:10.7930/J0765C7V
- Burke, S. E., Sanson, A. V., & Van Hoorn, J. (2018). The psychological effects of climate change on children. *Current psychiatry reports*, 20(5), 35. doi:10.1007/s11920-018-0896-9
- Caldwell, G. (2010, May 14). *16 tips for avoiding climate burnout*. Grist. Retrieved from https://grist.org/article/2010-05-12-coming-out-of-the-closet-my-climate-trauma-and-yours/
- Capaldi, C. A., Dopko, R. L., & Zelenski, J. M. (2014). The relationship between nature connectedness and happiness: a meta-analysis. *Frontiers in psychology*, *5*, 976. doi:10.3389/fpsyg.2014.00976
- Carrington, D. (2019, June 3). Climate crisis seriously damaging human health, report finds. Retrieved from https://www.theguardian.com/environment/2019/jun/03/climate-crisis-seriously-damaging-human-health-report-finds
- Center for Climate and Energy Solutions. (2020, January 13). Climate resilience portal. Retrieved from https://www.c2es.org/content/climate-resilience-overview/
- Children and Nature. (n.d.). Nature deficit disorder. Retrieved from https://www.childrenandnature.org/about/nature-deficit-disorder/
- Clayton, S., Manning, C. M., & Hodge C. (2014). Beyond storms & droughts: The psychological impacts of climate change. Washington, DC: American Psychological Association and ecoAmerica.
- Clayton, S., Manning, C. M., Krygsman, K., & Speiser, M. (2017). Mental health and our changing climate: Impacts, implications, and guidance. Washington, D.C.: American Psychological Association, and ecoAmerica.
- Climate Advocacy Lab. (n.d.). Climate campaign tools. Retrieved February 10, 2020, from https://www.climateadvocacylab.org/
- Climate Psychiatry Alliance. (n.d.). Media / Podcasts. Retrieved February 9, 2020, from https://www.climatepsychiatry.org/blog
- Climate Psychology Alliance. (n.d.). CPA North America. Retrieved February 11, 2020 from https://www.climatepsychologyalliance.org/international/cpa-north-america
- Climate Psychology Alliance. (n.d.). Facing difficult truths: Climate Psychology Alliance. Retrieved February 9, 2020, from https://www.climatepsychologyalliance.org/
- Climate Psychology Alliance. (2015, June 18). Everything and nothing: Radical hope in a time for climate change. Retrieved from https://www.climatepsychologyalliance.org/explorations/papers/70-everything-and-nothing-radical-hope-in-a-time-of-climate-change
- Climate Reality Project. (n.d.) Retrieved February 11, 2020 from https://www.climaterealityproject.org
- Climate Reality Project. (n.d.). County climate coalition. Retrieved February 11, 2020 from https://www.climaterealityproject.org/climatecoalition

- Climate Reality Project. (2018, October 18). 2030 or bust: 5 key takeaways from the IPCC report.

 Retrieved from https://www.climaterealityproject.org/blog/2030-or-bust-5-key-takeaways-ipcc-report
- Climate Reality Project. (2019). Climate 101. Retrieved from https://www.climaterealityproject.org/climate-101
- Climate Reality Project. (2019, January 4). The five stages of climate optimism. Retrieved from https://www.climaterealityproject.org/blog/five-stages-climate-optimism
- Climate Reality Project. (2019, January 30). Talking climate and environmental justice with Catherine Flowers. Retrieved from https://www.climaterealityproject.org/blog/talking-climate-and-environmental-justice-catherine-flowers
- Climate Reality Project. (2019, April 8). A dose of reality: How climate change affects our kids, straight from a pediatrician. Retrieved from https://www.climaterealityproject.org/blog/dose-reality-how-climate-change-affects-our-kids-straight-pediatrician
- Climate Reality Project. (2019, May 1). Why do we call it the climate crisis? Retrieved from https://www.climaterealityproject.org/blog/why-do-we-call-it-climate-crisis
- Climate Reality Project. (2019, May 15). Communicating the urgency of the climate crisis. Retrieved from https://www.climaterealityproject.org/blog/communicating-urgency-climate-crisis
- Climate Reality Project. (2019, May 31). How the climate crisis is driving central American migration. Retrieved from https://www.climaterealityproject.org/blog/how-climate-crisis-driving-central-american-migration
- Climate Reality Project. (2019, June 1). 5 podcasts to inspire you on climate. Retrieved from https://www.climaterealityproject.org/blog/5-podcasts-inspire-you-climate
- Coffee, J. (2018, February 14). Climate disasters hurt the poor the most. Here's what we can do about it. *Governing*. Retrieved from https://www.governing.com/commentary/col-disasters-disadvantaged-climate-justice.html
- Columbia University's Mailman School of Public Health. (2018, August 6). Children are highly vulnerable to health risks of a changing climate. *ScienceDaily*. Retrieved February 11, 2020 from www.sciencedaily.com/releases/2018/08/180806151856.htm
- Cooper, R. (2019, January 18). Extreme heat and mental health: Protecting patients. Retrieved from https://www.mdedge.com/psychiatry/article/168917/depression/extreme-heat-and-mental-health-protecting-patients
- Cunsolo, A., & Ellis, N. R. (2018). Ecological grief as a mental health response to climate change-related loss. *Nature Climate Change*, 8(4), 275.
- Currie, J., & Deschênes, O. (2016). Children and climate change: Introducing the issue. *The Future of Children*, 3-9.
- Dandy, J., Horwitz, P., Campbell, R., Drake, D., & Leviston, Z. (2019). Leaving home: place attachment and decisions to move in the face of environmental change. *Regional Environmental Change*, 19(2), 615–620. doi: 10.1007/s10113-019-01463-1
- Davenport, L. (2017). *Emotional resiliency in the era of climate change: a clinicians guide*. London, U.K.: Jessica Kingsley Publishers.
- Dean, S. (2019, May 25). ScienceAlert editor: Yes, it's time to update our climate change language. Retrieved from https://www.sciencealert.com/is-it-time-to-call-it-a-climate-crisis
- DeMocker, M., & McKibben, B. (2018). The parents guide to climate revolution: 100 ways to build a fossil-free future, raise empowered kids, and still get a good nights sleep. Novato, CA: New World Library.
- Doherty, T. J. (2018). Individual impacts and resilience. *Psychology and Climate Change*, 245–266. doi: 10.1016/b978-0-12-813130-5.00010-2
- Doppelt, B. (n.d.). The urgent need to building personal psychosocial resilience for climate change. Webinar at International Transformational Resilience Coalition. Retrieved from https://www.niehs.nih.gov/research/supported/translational/peph/webinars/climate_change/doppelt_508.pdf?offsite=true
- Dyregrov, A., Yule, W., & Olff, M. (2018). Children and natural disasters. *European Journal of Psychotraumatology*, 9(2). doi: 10.1080/20008198.2018.1500823

- Ebi, K.L., Balbus, J. M., Luber, G., Bole, A., Crimmins, A., Glass, G., Saha, S., Shimamoto, M. M., Trtanj, J., & White-Newsome, J. L. (2018). Human health. In Reidmiller, D.R., Avery, C. W., Easterling, D. R., Kunkel, K. E., Lewis, K. L. M., Maycock, T. K., Stewart, B. C. (Eds.), *Impacts, risks, and adaptation in the United States: Fourth national climate assessment* (Vol. 2, pp. 539-571). Washington, DC: U.S. Global Change Research Program. doi:10.7930/NCA4.2018.CH14
- Ebi, K. L., & Paulson, J. A. (2007). Climate change and children. *Pediatric Clinics of North America*, 54(2), 213-226. doi:10.1016/j.pcl.2007.01.004
- Ecoamerica. (n.d.). Retrieved February 11, 2020 from https://www.https://ecoamerica.org/
- Ecoamerica. (n.d.). Blessed tomorrow: Caring for creation today. Retrieved from https://ecoamerica.org/faith/
- Eichler, M. (2015). Raising children to cope with climate change?. Canadian Review of Sociology, 52(2), 232.
- Emile-Geay, J. (2019, June 17). *The increase in wildfires is linked via climate change to social inequity.* USCDornsife. Retrieved from https://dornsife.usc.edu/news/stories/3030/wildfire-increases-due-to-climate-change-social-inequality/
- Evans, G. W. (2019). Projected behavioral impacts of global climate change. *Annual review of psychology*, 70, 449-474.
- Fann, N., Brennan, T., Dolwick, P., Gamble, J. L., Ilacqua, V., Kolb, L., Nolte, C. G., Spero, T. L., & Ziska, L. (2016). Ch. 3: Air quality impacts. In *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, D.C.: U.S. Global Change Research Program (pp. 69–98). doi:10.7930/J0GQ6VP6
- Filberto, D., Wethington, E., Pillemer, K., Wells, N. M., Wysocki, M., & Parise, J. T. (2009). Older people and climate change: Vulnerability and health effects. *Generations*. Retrieved from https://www.asaging.org/blog/older-people-and-climate-change-vulnerability-and-health-effects
- Firman, T. (2019, April 4). *Why "ecowellness" could be the secret to a whole new level of health.* Well and Good. Retrieved from https://www.wellandgood.com/good-advice/what-is-ecowellness/
- Fisher, C. (2019, August 29). *The counseling connoisseur: Picnicking as a therapeutic tool.*Counseling Today. Retrieved from https://ct.counseling.org/tag/ecotherapy/
- Fritze, J. G., Blashki, G. A., Burke, S., & Wiseman, J. (2008). Hope, despair and transformation: climate change and the promotion of mental health and wellbeing. *International journal of mental health systems*, *2*(1), 13. doi:10.1186/1752-4458-2-13
- Frumkin, H., Bratman, G. N., Breslow, S. J., Cochran, B., Kahn, P. H., Jr, Lawler, J. J., ... Wood, S. A. (2017). Nature Contact and Human Health: A Research Agenda. *Environmental health perspectives*, 125(7), 075001. doi:10.1289/EHP1663
- Future of Children. (n.d.) Search results. Retrieved February 11, 2020 from https://futureofchildren.princeton.edu/search/site/climate
- Gamble, J.L., Balbus, J., Berger, M., Bouye, K., Campbell, V., Chief, K., Conlon, K., Crimmins, A., Flanagan, B., Gonzalez-Maddux, C., Hallisey, E., Hutchins, S., Jantarasami, L., Khoury, S., Kiefer, M., Kolling, J., Lynn, K., Manangan, A., McDonald, M., Morello-Frosch, R.... & Wolkin, A. F. (2016). Ch. 9: Populations of Concern. In *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, DC: U.S. Global Change Research Program, (pp. 247–286). doi: 10.7930/J0Q81B0T
- Ganesh, C., & Smith, J. A. (2018). Climate change, public health, and policy: A California case study. *American journal of public health*, 108(S2), S114-S119.
- Graduate Center, CUNY. (2019, February 6). Climate change poses greater risk of mental health challenges for children born to depressed mothers: The findings suggest a need for prenatal interventions in an era of growing environmental disasters. ScienceDaily. Retrieved February 10, 2020 from www.sciencedaily.com/releases/2019/02/190206131943.htm
- Greenleaf, A. T., Bryant, R. M., & Pollock, J. B. (2014). Nature-based counseling: Integrating the healing benefits of nature into practice. *International Journal for the Advancement of Counselling*, 36(2), 162-174.

- Hamblin, J. (2015, October). *The nature cure: Why some doctors are writing prescriptions for time outdoors.*The Atlantic. Retrieved from https://www.theatlantic.com/magazine/archive/2015/10/the-nature-cure/403210/
- Henderson, M., & Seekamp, E. (2018). Battling the tides of climate change: The power of intangible cultural resource values to bind place meanings in vulnerable historic districts. *Heritage*, 1(2), 220–238. doi: 10.3390/heritage1020015
- Hayes, K., Blashki, G., Wiseman, J., Burke, S., & Reifels, L. (2018). Climate change and mental health: risks, impacts and priority actions. *International Journal of Mental Health Systems*, 12, (28). doi:10.1186/s13033-018-0210-6
- Hayes, K., & Poland, B. (2018). Addressing Mental Health in a Changing Climate: Incorporating Mental Health Indicators into Climate Change and Health Vulnerability and Adaptation Assessments. *International journal of environmental research and public health*, 15(9), 1806. doi:10.3390/ijerph15091806
- Hayhoe, K., Wuebbles, D. J., Easterling, D. R., Fahey, D. W., Doherty, S., Kossin, J., Sweet, W.,
 Vose, R., & Wehner, M. (2018). Our changing climate. In Reidmiller, D.R., Avery, C. W., Easterling,
 D. W., Kunkel, K. E., Lewis, K. L. M., Maycock, T. K., Stewart, B. C. (Eds.), *Impacts, risks, and adaptation in the United States: Fourth national climate assessment* (Vol. 2, pp. 72-144). Washington,
 D.C.: U.S. Global Change Research Program. doi:10.7930/NCA4.2018.CH2
- Hess, J. J., Malilay, J. N., & Parkinson, A. J. (2008). Climate change: the importance of place. *American Journal of Preventive Medicine*, 35(5), 468-478. doi:10.1016/j.amepre.2008.08.024
- Horton, M. (2019, April 1). The effects of climate change on suicide rates. Retrieved from https://news.stanford.edu/2019/03/29/effects-climate-change-suicide-rates/
- Hunt, E. (2019, March 12). *BirthStrikers: meet the women who refuse to have children until climate change ends.* The Guardian. Retrieved from https://www.theguardian.com/lifeandstyle/2019/mar/12/birthstrikers-meet-the-women-who-refuse-to-have-children-until-climate-change-ends
- Institute for Sustainable Communities. (n.d.). Community resilience. Retrieved on February 11, 2020 from https://sustain.org/community-resilience/
- International Organization for Migration (2013). *Migration and climate change*. Edward Elgar Publishing Limited.
- International Transformational Resilience Coalition. (n.d.). Retrieved February 11, 2020 from http://www.theresourceinnovationgroup.org/intl-tr-coalition/
- IPCC. (2018). Summary for policymakers. In Masson-Delmotte, V., Zhai, P., Pörtner, H.O., Roberts, D., Skea, J., Shukla, P.R., Pirani, A., Moufouma-Okia, W., Péan, C., Pidcock, R., Connors, S., Matthews, J. B. R., Chen, Y., Zhou, X., Gomis, M. I., Lonnoy, E., Maycock, T., Tignor, M., & Waterfield, T. (Eds.), Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (pp. 33-65) [Report]. World Meteorological Organization: Geneva, Switzerland.
- IPCC. (2007). Climate change 2007: Impacts, adaptation and vulnerability. In Parry, M. L., Canziani, O. F., Palutikof, J. P., van der Linden, P. J., & Hanson, C. E. (Eds.), Working group II to the fourth assessment report of the Intergovernmental Panel on Climate Change (pp.976-992). Cambridge, UK: Cambridge University Press.
- Jackson, K. (n.d.). Climate change and public health: How social workers can advocate for environmental justice. *Social Work Today*, 17(6), 10.
- Jantarasami, L.C., Novak, R., Delgado, R., Marino, E., McNeeley, S., Narducci, C., Raymond-Yakoubian, J., Singletary, L., & Powys Whyte, K. (2018). Tribes and indigenous peoples. In Reidmiller, D.R., Avery, C. W., Easterling, D. R., Kunkel, K. E., Lewis, K. L. M., Maycock, T. K., & Stewart B. C. (Eds.) *Impacts, Risks, and Adaptation in the United States: Fourth National Climate*

- Assessment, Volume II. Washington, DC: U.S. Global Change Research Program (pp. 572-603). doi:10.7930/NCA4.2018.CH15
- Joszt, L. (2018, July 20). *5 vulnerable populations in healthcare*. AJMC Managed Markets Network. Retrieved from https://www.ajmc.com/newsroom/5-vulnerable-populations-in-healthcare?p=1
- Kenyon, G., & Mosaic. (2019, April 28). 'If the land is sick, you are sick': An Aboriginal approach to mental health in times of drought. Retrieved from https://scroll.in/pulse/921558/if-the-land-is-sick-you-are-sick-an-aboriginal-approach-to-mental-health-in-times-of-drought?fbclid=IwAR02QI0nw5_Oz8wN3q7NfRnLSyJCFJH25ySIj7EWuDwsBsg1TAPY4Tm342M
- King's College London. (2009, December 7). *Major impacts of climate change expected on mental health*. ScienceDaily. Retrieved January 8, 2020 from www.sciencedaily.com/releases/2009/12/091203101424.htm
- Law, R. (2019, May 9). I have felt hopelessness over climate change. Here is how we move past the immense grief | Rob Law. Retrieved from https://www.theguardian.com/commentisfree/2019/may/09/i-have-felt-hopelessness-over-climate-change-here-is-how-we-move-past-the-immense-grief
- Lazarovic, S. (2019, January 7). *How to not be (completely) depressed about climate change.* Yes Solutions Journalism. Retrieved from https://www.yesmagazine.org/environment/2019/01/07/how-to-not-be-completely-depressed-about-climate-change
- Lewis, J., Arnold, M. S., House, R., & Toporek, R. L. (2003). ACA Advocacy Competencies. Retrieved from http://www.counseling.org/resources/competencies/advocacy_competencies.pdf
- Louv, R. (2009, January 28). *No more "nature-deficit disorder": The "no child left inside" movement.* Psychology Today. Retrieved from https://www.psychologytoday.com/us/blog/people-in-nature/200901/no-more-nature-deficit-disorder
- Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The nature relatedness scale: Linking individuals' connection with nature to environmental concern and behavior. *Environment and behavior*, 41(5), 715-740. doi:10.1177/0013916508318748
- Majeed, H., & Lee, J. (2017). The impact of climate change on youth depression and mental health. *The Lancet Planetary Health*, 1(3), e94-e95.
- Marks, A. (2019, May 16). How the mental health community is bracing for the impact of climate change. Rolling Stone. Retrieved from https://www.rollingstone.com/culture/culture-features/how-climate-change-affects-mental-health-835807/
- Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of environmental psychology*, 24(4), 503-515. doi:10.1016/j.jenvp.2004.10.001
- Meyers, L. (2014, February 24). *In search of wellness*. Counseling Today. Retrieved from https://ct.counseling.org/2014/02/in-search-of-wellness/
- McMichael, C., Barnett, J., & McMichael, A. J. (2012). An ill wind? Climate change, migration, and health. *Environmental health perspectives*, 120(5), 646-654. doi:10.1289/ehp.1104375
- Milman, O. (2018, September 24). 'We're moving to higher ground': America's era of climate mass migration is here. Retrieved from https://www.theguardian.com/environment/2018/sep/24/americas-era-of-climate-mass-migration-is-here
- Kuo, M., Barnes, M., & Jordan, C. (2019). Do experiences with nature promote learning? Converging evidence of a cause-and-effect relationship. *Frontiers in psychology*, *10*, 305.
- Minnesota Department of Health. (n.d.). Climate change and wellbeing Minnesota Department of Health. Retrieved February 9, 2020, from https://www.health.state.mn.us/communities/environment/climate/wellbeing.html
- NAACP. (n.d.). Environmental & Climate Justice. Retrieved from https://www.naacp.org/issues/environmental-justice/
- NASA. (2019, December 30). Climate change evidence: How do we know? Retrieved from https://climate.nasa.gov/evidence/

- National Centre for Atmospheric Science. (n.d.). Long-term global change. Retrieved from https://www.ncas.ac.uk/en/climate-home-page
- New York Times. (n.d.). Climate and environment. Retrieved on February 11, 2020 from https://www.nytimes.com/section/climate
- Nickerson, A., Liddell, B., Asnaani, A., Carlsson, J. M., Fazel, M., Knaevelsrud, C., ... & Rasmussen, A. (2017). Trauma and mental health in forcibly displaced populations: An international society for traumatic stress studies briefing paper.
- NOAA. (n.d.). U.S. Climate Resilience Toolkit. Retrieved February 10, 2020, from https://toolkit.climate.gov/
- NPR. (2005, May 25). Saving kids from 'nature deficit disorder.' Retrieved from https://www.npr.org/templates/story/story.php?storyId=4665933
- Obradovich, N., Migliorini, R., Paulus, M. P., & Rahwan, I. (2018). Empirical evidence of mental health risks posed by climate change. *Proceedings of the National Academy of Sciences*, 115(43), 10953-10958.
- Ojala, M. (2012). How do children cope with global climate change? Coping strategies, engagement, and well-being. *Journal of Environmental Psychology*, 32(3), 225-233. doi:10.1016/j.jenvp.2012.02.004
- Opitz-Stapleton, S., Twigg, J., Shepherd, A., Diwakar, V., & Lovell, E. (2019). Child poverty, disasters and climate change: investigating relationships and implications over the life course of children. Overseas Development Institute.
- O'Rourke, C. (2019, November 8). *Climate change's hidden victim: Your mental health.* Medium. Retrieved from https://onezero.medium.com/the-emotional-damage-done-by-climate-change-2f8f9ad59155
- Ospina, C. (2019, September 13). Engaging in climate justice in the US to protect and empower vulnerable populations. Retrieved from http://climate.org/engaging-in-climate-justice-in-the-us-to-protect-and-empower-vulnerable-populations/
- Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global environmental change*, 18(4), 598-606. doi:10.1016/j.gloenvcha.2008.07.013
- Pritchard, A., Richardson, M., Sheffield, D., & McEwan, K. (2019). The relationship between nature connectedness and eudaimonic well-being: A meta-analysis. *Journal of Happiness Studies*, 1-23. doi:10.1007/s10902-019-00118-6
- Public Health Institute & Center for Climate Change and Health. (2016). Special focus: Climate change and children. Retrieved from http://climatehealthconnect.org/wp-content/uploads/2016/09/Children.pdf
- Red Cross Red Crescent Climate Centre. (n.d.). Climate Centre. Retrieved February 9, 2020, from https://www.climatecentre.org/
- Red Cross Red Crescent Climate Centre. (2007). *Climate guide*. Netherlands: International Federation of Red Cross Red Crescent Societies.
- Reese, R. (2015). Ecowellness. In E. Neukrug (Ed.), *The SAGE encyclopedia of theory in counseling and psychotherapy* (pp. 317-320). Thousand Oaks,, CA: SAGE Publications, Inc. doi: 10.4135/9781483346502.n113
- Reese, R. F. (2016). Ecowellness & guiding principles for the ethical integration of nature into counseling. *International Journal for the Advancement of Counselling*, 38(4), 345–357. doi: 10.1007/s10447-016-9276-5
- Reese, R. F. (2018). EcoWellness: Contextualizing nature connection in traditional clinical and educational settings to foster positive childhood outcomes. *Ecopsychology*, 10(4), 289-300. https://doi:10.1089/eco.2018.0031
- Reese, R. F., & Myers, J. E. (2012). EcoWellness: The missing factor in holistic wellness models. *Journal of Counseling & Development*, 90(4), 400-406. doi:10.1002/j.1556-6676.2012.00050.x
- Reese, R. F., Myers, J. E., Lewis, T. F., & Willse, J. T. (2015). Construction and initial validation of the Reese EcoWellness Inventory. *International Journal for the Advancement of Counselling*, 37(2),

- 124-142. doi:10.1007/s10447-014-9232-1
- Reese, R. F., Webster, L. C., & Biles, K. (2019). School counselor roles and opportunities in promoting ecowellness: Integrating nature connection in K–12 settings. *Professional School Counseling*, 22(1), doi:10.1177.2156759X19839651.
- Reuben, A. (2019, June 11). The incredible link between nature and your emotions. Outside.

 Retrieved from https://www.outsideonline.com/2397694/nature-mental-health?utm_
 medium=social&utm_campaign=facebookpost&utm_sou`rce=facebook&fbclid=IwAR1z_
 QqjLQMwlDmXzVhhY4QSyN8FiDAZcsOJpQ6E1vRuYGhSCzrrRa62IP0
- Roudini, J., Khankeh, H. R., & Witruk, E. (2017). Disaster mental health preparedness in the community: A systematic review study. *Health Psychology Open*. doi:10.1177/2055102917711307
- Ruiz, R. (2014, July 14). What's missing in climate change discussion? The certainty of trauma...and building resilience. ACES Too High. Retrieved from https://acestoohigh.com/2014/07/14/whats-missing-in-climate-change-discussion-the-certainty-of-trauma-and-building-resilience/
- Sarofim, M.C., Saha, S., Hawkins, M. D., Mills, D. M., Hess, J., Horton, R., Kinney, P., Schwartz, J., & St. Juliana, A. (2016). Ch. 2: Temperature-Related Death and Illness. In *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Washington, D.C.: U.S. Global Change Research Program (pp. 43–68). doi:10.7930/J0MG7MDX
- Scannell, L., Cox, R. S., & Fletcher, S. (2017). Place based loss and resilience among disaster affected youth. *Journal of community psychology*, 45(7), 859-876. doi:10.1002/jcop.21897
- Schlanger, Z. (2018, October 15). *There's a word for the feeling of loss due to climate change*. Quartz. Retrieved from https://qz.com/1423202/a-philosopher-invented-a-word-for-the-psychic-pain-of-climate-change/
- Schlanger, Z. (2017, April 3). We need to talk about "ecoanxiety": Climate change is causing PTSD, anxiety, and depression on a mass scale. Quartz. Retrieved from https://qz.com/948909/ecoanxiety-the-american-psychological-association-says-climate-change-is-causing-ptsd-anxiety-and-depression-on-a-mass-scale/
- Schwerdtle, P., Bowen, K., & McMichael, C. (2017). The health impacts of climate-related migration. *BMC medicine*, 16(1), 1. doi:10.1186/s12916-017-0981-7
- Sheffield, P. E., Herrera, M. T., Kinnee, E. J., & Clougherty, J. E. (2018). Not so little differences: Variation in hot weather risk to young children in New York City. *Public health*, 161, 119-126.
- Shriver Center on Poverty Law. (2017, October 12). What natural disasters reveal about racism and poverty. Retrieved from https://theshriverbrief.org/what-natural-disasters-reveal-about-racism-and-poverty-acb545b09405
- Sierra Club. (n.d.). Climate parents. Retrieved on February, 11, 2020 from https://www.sierraclub.org/climate-parents
- Stein, M. I. (2018, January 25). How to save a town from rising waters. Retrieved from https://www.wired.com/story/how-to-save-a-town-from-rising-waters/
- Sturm, D., & Echterling, L. (2017, May 10). *Preparing for the mental health impact of climate change. Counseling Today*. Retrieved from https://ct.counseling.org/2017/05/preparing-mental-health-impact-climate-change/
- Swain, G. R. (2016). How does economic and social disadvantage affect health?. Focus, 33(1), 1-6.
- Swift, J. (2020, February 5). Migration, forced by climate change. Retrieved from https://research.cornell.edu/news-features/migration-forced-climate-change
- Tanner, T. (2010). Shifting the narrative: Child-led responses to climate change and disasters in El Salvador and the Philippines. *Children & Society*, 24(4), 339–351. doi: 10.1111/j.1099-0860.2010.00316.x
- Ticehurst, S. (2016). Heat waves and the mentally ill. *Australian & New Zealand Journal of Psychiatry*, 50(6), 603-603.

- Trumpener, B. (2019, May 14). Mental health concerns raised as early wildfires spark renewed anxiety in tinder-dry B.C. | CBC News. Retrieved from https://www.cbc.ca/news/canada/british-columbia/bcwildfires-harming-mental-health-says-bc-medical-journal-1.5134632
- Tschakert, P., Barnett, J., Ellis, N., Lawrence, C., Tuana, N., New, M., ... & Pannell, D. (2017). Climate change and loss, as if people mattered: values, places, and experiences. *Wiley Interdisciplinary Reviews: Climate Change*, 8(5), e476. doi: 10.1002/wcc.476
- Union of Concerned Scientists. (2010, September 15). Climate change and mental health. Retrieved from https://www.ucsusa.org/resources/climate-change-and-mental-health
- UNICEF-IRC. (n.d.). Climate change and children. Retrieved February 10, 2020, from https://www.unicef-irc.org/research-watch/Climate-change-and-children/
- United Nations Climate Change. (2016, August 2). Retrieved from https://unfccc.int/news/climate-change-mainly-impacting-vulnerable-children
- United Nations High Commissioner for Refugees, & United Nations. General Assembly. (2005). Report of the United Nations High Commissioner for Refugees (No. 12). United Nations Publications.
- United Nations Population Fund, & Women's Environmental and Developmental Fund. (2009). *Educate and advocate*. Climate Connections. Retrieved from https://www.unfpa.org/sites/default/files/pub-pdf/climateconnections_6_advocacy.pdf
- United States Environmental Protection Agency. (2016, May). *Climate change and the health of people with disabilities*. Carnegie Mellon University. Retrieved from https://www.cmu.edu/steinbrenner/EPAFactsheets/disabilities-health-climate-change.pdf
- United States Environmental Protection Agency. (2016, May). *Climate change and the health of people with existing medical conditions*. Carnegie Mellon University. Retrieved from https://www.cmu.edu/steinbrenner/EPA%20Factsheets/existing-conditions-health-climate-change.pdf
- Urban Sustainability Directors Network. (n.d.). Our Partners. Retrieved on February 11, 2020 from https://www.usdn.org/our-partners.html
- USDA, Forest Service. (2018). Urban nature for human health and well-being: a research summary for communicating the health benefits of urban trees and green space. FS-1096. Washington, D.C. Retrieved from https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/urbannatureforhumanhealthandwellbeing_508_01_30_18.pdf
- USDA, Forest Service. (2019, July 17). Nature's benefits infographic. Retrieved from https://www.fs.usda.gov/detail/r5/landmanagement/?cid=FSEPRD602851
- USGCRP. (2016, April 4). The impacts of climate change on human health in the United States: A scientific assessment. Retrieved from https://health2016.globalchange.gov/
- Vins, H., Bell, J., Saha, S., & Hess, J. J. (2015). The Mental Health Outcomes of Drought: A Systematic Review and Causal Process Diagram. *International journal of environmental research and public health*, 12(10), 13251–13275. doi:10.3390/ijerph121013251
- Wallace-Wells, D. (2019, June 21). Disaster upon disaster. Retrieved from https://nymag.com/intelligencer/2019/06/multiple-climate-driven-disasters-in-te-midwest-and-globally.html
- Warber, S. L., DeHudy, A. A., Bialko, M. F., Marselle, M. R., & Irvine, K. N. (2015). Addressing "nature-deficit disorder": A mixed methods pilot study of young adults attending a wilderness camp. *Evidence-based complementary and alternative medicine*: eCAM, 2015, 651827. doi:10.1155/2015/651827
- Weir, K. (2015, January). Adapting to a warmer world. *Monitor on Psychology*, 46(1), 34. Retrieved from https://www.apa.org/monitor/2015/01/adapting
- White, M. P., Alcock, I., Grellier, J., Wheeler, B. W., Hartig, T., Warber, S. L., ... & Fleming, L. E. (2019). Spending at least 120 minutes a week in nature is associated with good health and wellbeing. *Scientific reports*, 9(1), 1-11. doi:10.1038/s41598-019-44097-3

- Woodbury, Z. (2019). Climate trauma: Towards a new taxonomy of traumatology. *Ecopsychology*. doi:10.1089/eco.2018.0021
- World Health Organization. (2016, January 4). Protecting the world's children from climate change. Retrieved from https://www.who.int/life-course/news/commentaries/protecting-children-from-climate-change/en/
- Willox, A. C., Harper, S. L., Ford, J. D., Landman, K., Houle, K., & Edge, V. L. (2012). "From this place and of this place:" Climate change, sense of place, and health in Nunatsiavut, Canada. *Social Science & Medicine*, 75(3), 538–547. doi: 10.1016/j.socscimed.2012.03.043