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Mental health research for a world in climate crisis

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The accelerating climate crisis is reshaping not only the physical world but also the psychological landscapes in which individuals and communities attempt to live, learn and adapt.[1 2] However, a paucity of psychiatric studies on mental disorders associated with climate change is evident, highlighting a need for climate–mental health research and policy that is contextually grounded, culturally inclusive and scientifically robust.[3 4]

The collection of articles featured in this special collection illuminates this rapidly evolving terrain from multiple vantage points—educational, cultural, clinical, methodological and epidemiological—revealing a shared urgency.

Across school systems in the Global North, climate change education remains an underdeveloped domain despite young people expressing high levels of concern about the future. Mottishaw and MacQuarrie remind us that preparing youth for a destabilised climate requires more than scientific literacy: it demands recognising and constructively engaging with the complex emotional responses that climate realities evoke.[5] Anxiety, grief, hope and agency coexist in the classroom, shaped not only by curricula, but also by the pervasive influence of social media and informal learning. Their call for evidence-based, emotionally attuned educational strategies signals a broader shift in the field towards interventions that honour young people's lived experiences rather than merely supplying information.

This theme of lived experience is expanded in Gougsa *et al*'s powerful reflection on working with Indigenous peoples across five global regions.[6] Their analysis exposes deep methodological fissures between Western scientific approaches and Indigenous worldviews in which land, body and ecosystem form a single, inseparable whole. Concepts such as 'mental health' or 'climate change' often lack linguistic or cultural equivalents, and legal restrictions on land use cut directly into traditions fundamental to well-being. Their argument is unequivocal: ethical climate–mental health research must centre Indigenous epistemologies, cultural rights and self-determination, not retrofit them into pre-existing academic frameworks. While the psychological consequences of climate change manifest across cultural contexts, several contributions highlight the need for differentiated approaches to resilience and adaptation.

Nimo *et al* propose positive psychology as a tool for strengthening individual coping capacities—particularly among vulnerable groups—through psychological capital, cognitive reframing and mindfulness.[7] These strategies do not solve climate change, but they can help transform immobilising anxiety into meaningful engagement and prepare communities for ongoing disruption.

Yet as Butler notes in his examination of the 'bottom billion', the populations most exposed to climate impacts are paradoxically the least studied in terms of eco-anxiety.[8] Structural inequalities—including malnutrition, limited education, low digital access and competing survival priorities—may suppress the articulation or recognition of climate-specific distress. The resulting invisibility raises an ethical imperative: policy makers must act proactively, not only when psychological symptoms conform to Western diagnostic models.

The need for stronger evidence also emerges in the systematic reviews in this issue. Kip *et al* find that current psychological and psychosocial interventions for survivors of natural hazards offer no clear preventive benefit over control conditions, largely due to methodological limitations and high instances of bias.[9] Similarly, Abdelraheem *et al* highlight conceptual fragmentation within ecological intelligence research, noting that individual-level tools are insufficient for informing national or global policy.[10] Both reviews underscore a critical bottleneck: robust, culturally sensitive measurement tools remain scarce, and without them, effective intervention and policy design will continue to lag behind the accelerating crisis. Progress will depend on more culturally attuned and multi-method measurement tools, capable of capturing the anticipatory, contextual and non-pathological dimensions of climate-related emotions.

New empirical research presented in this special collection deepens our understanding of how climate-related distress unfolds in real time. Wasmus *et al*'s qualitative work with German youth reveals the pervasive cognitive, emotional and behavioural impacts of climate distress—sleep disruption, impaired concentration and persistent worry—interwoven with cycles of hope, meaning-making and proenvironmental action.[11] Crucially, young people describe both maladaptive avoidance and adaptive regulatory strategies, suggesting clear targets for intervention development.

Tao *et al* extend this understanding to the wildfire-prone USA. Communities demonstrate that climate change anxiety and anticipatory disaster stress often reflect adaptive, situationally appropriate responses that motivate preparedness.[12] This challenges the pathologisation of climate emotions and reframes distress as a potentially functional signal in contexts of recurring environmental threat.

Collery and Niedzwiedz add a cross-national perspective by showing that the relationship between climate worry and anxiety varies significantly across Europe, shaped by sociocultural and policy contexts.[13] Meanwhile, Hertzog *et al* quantify the starkest outcome of climate-related stressors: heat anomaly-related suicides.[14] Their

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findings, particularly the vulnerability of older men during hotter seasons, highlight a pressing need for climate-informed suicide prevention policy.

Across these diverse contributions, several themes converge. First, climate-related psychological responses are neither uniform nor universally pathological. They are shaped by culture, exposure, power and context. Second, the field demands methods that reflect the complexity of climate impacts—from the individual and momentary to the structural and intergenerational. Third, interventions must expand beyond traditional clinical models, integrating cultural knowledge systems, educational reform, community resilience strategies and structural change. Finally, as the climate crisis accelerates, so too must our collective capacity to measure, understand and support mental well-being in its wake.

Together, these articles offer a richer, more nuanced understanding of the climate–mental health nexus. They challenge researchers, practitioners and policy makers to reimagine what constitutes evidence, resilience and care in a rapidly transforming world. Effective action will require embedding climate–mental health into national adaptation planning, primary care guidelines and education systems. In doing so, an essential step is taken towards building emotionally, culturally and ecologically sustainable futures.

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