SUMMARY AGENDA

Climate and Mental Health Regional Research & Action Agenda

Latin America & the Caribbean

connecting climate minds

hub.connectingclimateminds.org

Imperial College London Projects

THE UNIVERSITY OF THE WEST INDIES

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REGIONAL AGENDA LEADS:

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Executive summary

Connecting Climate Minds (CCM) is a Wellcome-funded initiative which aims to cultivate a collaborative, transdisciplinary climate change and mental health field with a clear and aligned vision. Over the last year, we have convened experts across disciplines, sectors and countries to develop regional and global research and action agendas. These agendas set out 1) research priorities to understand and address the needs of people experiencing the mental health burden of the climate crisis, and 2) priorities to enable this research and translate evidence into action in policy and practice. This report summarises the research and action agenda for climate change and mental health in Latin American and the Caribbean (LAC); the full agenda[1] has been published separately and is available **here**.

Within LAC the risk of experiencing climate-related mental health challenges varies across geographic areas, personal demographics and sociocultural characteristics. However, Indigenous Peoples, ethnic minorities, coastal economy and farming communities, women, children, youth, the elderly, disabled persons and persons with pre-existing mental health challenges appear most vulnerable to climate-related mental health challenges. While more research is needed, traditional medicines and community responses – including by religious groups and those who trust in a power beyond humanity – may be useful tools to address mental health and wellbeing challenges linked to climate change in the region.

Priority research themes for the region cover myriad areas, including:

- **Understanding and defining** concepts of self-perceived climate-related mental health vulnerability and resilience
- **Defining key diagnostic terms** such as eco-anxiety;
- **Quantifying** the 'additional' mental health burden associated with the climate crisis;
- **The disruptions in mental healthcare pathways** occurring secondary to the climate crisis; and
- **Understanding the pathways and mechanisms** by which the climate crisis is affecting mental health in LAC, including:
  - **The extent to which climate crisis-related modulations of general socioeconomic or human development indicators give rise** to mental health challenges or mental wellbeing distortions;
  - **The impact of heat on mental health outcomes**, including depressive states and incidence of self-harm or death by suicide;
  - **Climate-related circadian rhythm distortion** due to changes in living and sleeping conditions, and accompanying incidence of poor mental wellbeing or effects on mental health in children and Indigenous Peoples (these were the groups identified as being vulnerable to this issue, but it is likely that it is far more widespread); and
  - **Climate-related cortisol changes** and the occurrence of stress.

Operationalising a research agenda in LAC will require respectful, contextually relevant and culturally appropriate research. Participatory approaches to research will be crucial, with involvement of Indigenous Peoples, youth and civil society organisations (especially where formal national governance structures are fragile). Engagement with lay community members as co-creators, implementers and disseminators of research will be important to ensure a sense of belonging, agency and purpose for climate-related mental health action, especially among youth.

We hope this agenda will help to focus the efforts of funding, policy and practice communities working toward a future where no one is held back by climate-related mental health challenges.

Introduction

Climate hazards in Latin America and the Caribbean

Latin America and the Caribbean (LAC) is facing an increase in the frequency and severity of a range of climate hazards, including the following, modelled to approximately 2030 as compared to historical baseline (generally 1986-2005): [2,3,i]

- **Extreme temperatures**, particularly in the tropical regions of South America, Central America and Cuba and the coastal regions of Mexico (with variation across climate models; medium confidence);[ii]
- **Droughts and wildfires** in North Argentina, the more populous regions of Brazil and areas of Mexico (high confidence);
- **Heavy precipitation events and flooding**, with the intensity and frequency of extreme precipitation and pluvial floods projected to increase in South America (medium to high confidence), though Central America and the Caribbean Islands are more likely to experience a decline in the average rainfall (low confidence);
- **Sea-level rise**, contributing to increased coastal flooding in low-lying areas and shoreline retreat along most sandy coasts, particularly around Central and South America (high confidence); and
- **Tropical cyclones**, with a projected median increase of around 3%.

Climate change and mental health in Latin America and the Caribbean

Existing research

A scoping review conducted as a foundational step of this project found limited studies within LAC investigating the impact of climate change on mental health. Existing research provides important insights grounded in the cultural and historical contexts of climate and mental health in LAC[4–13]. Yet many studies were conducted after major cyclonic disasters and lack wider consideration of the impact of the climate crisis on mental health. The identified literature mainly focuses on negative mental health outcomes due to acute extreme climatic events in the context of a) the severity of witnessed/experienced trauma/loss, and b) underlying socio-economic vulnerabilities[4–6].

Findings from the Connecting Climate Minds project

The following sections present findings from the Connecting Climate Minds (CCM) project – including pre-dialogue scoping, two dialogues, two surveys and expert consultations (refer to the appendix for details on methods) – to explore: perceptions of mental health risks associated with climate exposures; whose mental health may be most at risk; and the pathways through which climate exposures might produce or exacerbate existing mental health challenges. Please note that the summaries in the following sections are reports or perceptions from diverse experts, including those with lived experience, rather than drawing from published evidence.

[i] *Future projections are based on the middle of the road emissions scenario (SSP2-4.5 Shared Socio-economic Pathway) from the CMIP6 multi-model ensemble provided in the IPCC, 2021*

[ii] *Within the IPCC and other major sources of climate projections, confidence levels are given on a scale of low, medium, high. The ranking refers to the robustness of the evidence available and the agreement between climate models.*

What mental health outcomes appear to be impacted?

Dialogue participants highlighted mental distress related to loss of property, livelihood or forced migration due to climate crises in multiple locations across LAC. In addition, they noted the development of hopelessness or loss of long-term purpose in youth, which – though not explicitly stated – could impact the development of depression and anxiety.

Who appears to be particularly affected by the mental health impacts of climate change?

Children	Coastal and farming communities	Disabled persons
Ethnic minorities	Indigenous groups	Persons with pre-existing mental health challenges
The elderly	Women	Youth

What appear to be the pathways and mechanisms linking these climate hazards to mental health outcomes?

Adverse climate events may act as primary triggers for a cascade of events leading to adverse socioeconomic outcomes which may negatively impact mental health (e.g., drought can lead to loss of food security, which can lead to forced migration and displacement, which can lead to poverty-related vulnerabilities, which can lead to poor mental health/mental wellbeing) or exacerbate existing mental health challenges due to alterations in care pathways.

Participants also identified possible biological mechanisms for direct effects of climate on mental health, including: the impact of heat on depressive states and incidence of self-harm; climate-related circadian rhythm distortion due to changes in living and sleeping conditions, leading to poor mental health or mental wellbeing, particularly in children and Indigenous populations; and climate-related cortisol changes associated with stress. However, research is needed to further explore these mechanisms.

Research agenda

Priority research themes

This research agenda presents an aligned vision to guide the climate and mental health field in LAC. Research priorities have been generated through extensive consultation with experts across disciplines, sectors and geographies in the region and iterated with experts regionally and globally; they are presented within four overarching research categories that were identified as areas of critical need for further work globally, based on an initial review of the literature (see appendix for further details). The priority research themes represent areas where targeted research investment could create a full picture of climate-related impacts on mental health challenges, their mechanisms and solutions across both mental health and climate actions.

RESEARCH CATEGORY

Impacts, risks and vulnerable groups

Priority research themes:

Identifying the characteristics of people living in climate change-vulnerable populations in LAC and measuring how the mental health of these populations is affected by these vulnerabilities.

Investigating the association, if any, between exposure to adverse climate events and the occurrence of mental health challenges or changes in a person's baseline mental wellbeing state in LAC.

Measuring the incidence/prevalence of changes in [state a specific mental health challenge, e.g., suicidal ideation] or a person's baseline mental wellbeing attributable to climate change in LAC.

Identifying the sociodemographic factors that influence vulnerability to climate change-related mental health challenges in LAC.

Identifying and evaluating the most effective ways to recruit and sample climate-vulnerable populations across large geographic areas in LAC to aid appropriate and robust data collection in climate and mental health research.

Identifying and assessing culturally appropriate and cost-effective methods for gathering solution-oriented lived experience data about climate-related mental health in the [insert population of interest, e.g., Indigenous Peoples] affected by [insert climate event, e.g., drought] within LAC.

Understanding how climate-vulnerable populations in LAC perceive and respond to extreme climate events and how these perceptions and responses relate to mental health outcomes. *(This is important for populations who might not view climate change as negative, such as persons with spiritual worldviews that perceive climate change as normal or expected.)*

Quantifying the mental health challenge/mental wellbeing burden directly attributable to climate change among [insert population of interest, such as identified vulnerable groups, e.g., fishing communities] in LAC.

Identifying the climate events associated with the highest risk of worsening mental health challenges and/or poor mental wellbeing amongst the population in LAC.

Identifying and understanding which lived experience factors occurring secondary to climate-related events in LAC increase the likelihood of mental health challenges.
(If explored from a qualitative lens, this question may be expanded to assess the impact of witnessing and responding to acute climate trauma, ecosystem-related loss or grief, sexual violence stemming from climate change effects, and poverty-related marginalisation/stigma/discrimination secondary to climate change, as identified in the dialogues.)

RESEARCH CATEGORY

Pathways and mechanisms

Priority research themes:

Measuring the prevalence of gender-based violence occurring in climate-marginalised women and children (including persons who are homeless, migrant or housing insecure secondary to climate events) in LAC and how this affects mental health and mental wellbeing.

Analysing the impact of [insert any climate event] on the circadian rhythm of [insert any population] in LAC and the resulting effects on mental health outcomes.
(Circadian rhythm refers to physiological sleep-wake cycles; this question explores the mental health effects of disruptions that can occur in associated hormones due to changes in this rhythm from climate-related factors such as heat or displacement from housing/shelter following climate disasters, etc.)

Evaluating the impact of cortisol-modifying biological mechanisms on the mental health challenges and mental wellbeing of people impacted by adverse climate events in LAC. *(Participants specifically mentioned the effect of climate-related stress on cortisol levels; effects on other stress-related hormones may also be worthy of research.)*

Assessing the impact of heat on the bio-availability of medicines used to treat mental health conditions within LAC and the stability of these medicines during storage.
(In particular, this question explores how heat impacts the active components of medicines and how these components then interact with physiologic mechanisms.)

RESEARCH CATEGORY

Mental health benefits of climate action (adaptation and mitigation)

Priority research themes:

Identifying the most effective interventions for fostering collective community action for climate adaptation and mitigation in ways that also improve mental health outcomes (e.g., collective action around disaster response, collective action to improve green spaces/tree planting projects, etc.) in LAC.

Identifying low-cost mechanisms for effectively sharing information regarding climate risk with vulnerable populations (including in informal and formal education settings) in LAC and evaluating how this affects mental health outcomes. *(This research should include identifying and evaluating existing information sharing structures in either mental health or climate spheres, for example leveraging disaster emergency warning systems.)*

Identifying and evaluating the drought survival and/or land use management mechanisms used by Indigenous Peoples in LAC and their potential to minimise mental distress and improve mental health outcomes for populations affected by climate change. *(The climate event can be altered for this question.)*

Identifying and evaluating the most effective interventions for promoting advocacy and agency as a tool for fostering climate resilience in young people in LAC and assessing the implications of these interventions on mental health outcomes.

Identifying and assessing culturally appropriate, accessible and affordable climate change education or awareness raising activities that could improve mental health outcomes for climate-vulnerable populations in LAC.

Assessing the potential of modifying existing disaster risk communication strategies (which are used to help minimise the mental health effects of climate disasters in climate vulnerable regions) to address the mental health effects of creeping and acute climate threats across regions in LAC.

Identifying the barriers to raising awareness of the impact of climate on mental health amongst climate-vulnerable populations in LAC.

RESEARCH CATEGORY

Mental health interventions/solutions in the context of climate change

Priority research themes:

Assessing the impact of daily mindfulness or spiritual practices on mental health challenges and mental wellbeing among the [insert a subpopulation, e.g., Calinago] in LAC in response to [insert climate event of interest].

Identifying the most effective ways for interdisciplinary and multisectoral action to support climate and mental health interventions in LAC.

Understanding a) how people with mental health challenges connect to care services in LAC, b) whether this changes in the context of climate-related crises, c) if this changes, how outcomes are affected, and d) the best way to provide appropriate and continued care.

Understanding the role of religion and spirituality (trusting in the existential) in contextualising/experiencing mental health challenges in relation to climate change in LAC, and how to appropriately account for this in intervention development and implementation.

Understanding the nature and efficacy of self-management and resilience practices of Indigenous populations with respect to [insert adverse event] and [insert mental health outcome of interest].

Identifying and evaluating the efficacy of medicinal plants and creole seeds used by Indigenous Peoples to minimise or reduce the mental health challenges caused by climate change in [insert specific region] and understanding the implications of a changing climate for their use and availability.

Identifying and assessing the shared (across climate and mental health) policy and funding mechanisms across the region to support research at the mental health and climate intersection in LAC.

Identifying and evaluating which collective and community-based interventions are most beneficial to protect mental health and mental wellbeing in the context of the climate crisis in LAC.

Identifying the most efficient multi-system partnerships to address the combined social, economic and commercial determinants of mental health challenges and/or poor mental wellbeing that may be worsening as a consequence of acute and chronic climate threats. *(This question is included to highlight the need for multisectoral and system-level action to investigate and address the impact of the climate crisis on mental health.)*

Action agenda

This action agenda sets out a shared vision as a rallying focus of the mental health and climate change field in LAC. It sets out the challenges which must be addressed, opportunities that can be harnessed and priority actions to work towards a thriving climate and mental health field.

Regional vision for mental health in a changing climate

We envision a future where through collective corrective actions, the human impacts on climate change are reversed or minimised. Climate-related mental health outcomes are improved by reducing climate hazards and creating an enabling policy and social infrastructure; this includes participatory interdisciplinary research and better diagnostic and treatment services for climate-related mental health challenges.

Creating an enabling environment for research and translating a growing evidence base into action

Creating an enabling environment for research at the intersection of climate change and mental health

Challenges:

- **Lack of consensus** on key terms
- **Lack of validation of tools** across disciplines
- Absence, or limited utility, of **surveillance systems or registries for mental health data**
- Possible **lack of understanding of the presentation of delayed mental health manifestations** post-disaster, leading to late diagnoses
- **Funding**

Opportunities and enablers:

- **Partnering with existing institutions**, such as Universidade de Sao Paulo or Federal University of Rio Grande do Sul, to design and execute research in academic and nonacademic settings
- **Leveraging currently commissioned work** by large international groups in related areas, like food security, in the region

Relevant potential partners:

- **Civil society organisations**
- **Lived experience groups**
- Varied **health professionals**
- **Youth**

Translating a growing evidence base into action that can respond to the mental health impacts of climate change

Challenges:

- **Relative newness of mental health and climate change** as a public health issue of significance; therefore, the issue may be low on political and other social action agendas
- **General societal stigma around mental health**, which presents challenges to awareness and priority setting at the policy level

Opportunities and enablers:

- **Harnessing current interest in the field**
- **Highlighting acute crisis climate situations** to highlight the urgency of a response and the need for long-term solutions
- **Leveraging community preparedness and collective action**

Relevant potential partners:

- **State/government stakeholders**, including ministries of the environment and health services
- **Non-governmental stakeholders**, including representatives from schools, universities, coastal and mountain communities, people with disabilities, mental health organisations, churches, farming communities and fisher peoples, women and victim's associations, and grassroots organisations
- **Private sector** businesses with the potential, or perceived potential, to negatively impact ecosystems in the region (e.g., fertiliser producers, agribusiness and large consumers of land and water)
- **International entities**, such as UN agencies, women's organisations, medical associations, psychological associations and research centres

Priority next steps/recommendations to investors and actors

Creating an enabling environment for research at the intersection of climate change and mental health

Given the multiple factors influencing the interaction between climate change and mental health in LAC, funders, researchers and policy makers should urgently seek to adopt a multisectoral approach which fundamentally views stewardship of the earth's resources as being inseparable from continued human development and wellbeing.

Funding institutions should:

- Create shared pools across institutions from diverse sectors to increase available funding/resources (e.g., pooling resources from traditional funders of health and traditional funders of security response research).
- Create dedicated allocations for climate and mental health within existing explicitly long-term funding streams (e.g., food policy research).

Funding and research institutions should prioritise projects that:

- Create or augment mental health and climate surveillance systems; this will aid in understanding the baseline epidemiological climate and mental health interactions in the region.
- Create and validate climate and mental health diagnostic tools (e.g., those needed for eco-anxiety).
- Contain practical components for increasing mental health and/or mental wellbeing in the context of climate change at the community level (preferably with demonstrable sustainability and high community impact).

Translating a growing evidence base into action that can respond to the mental health impacts of climate change

Policy makers should:

- Create mechanisms for enhancing medical education and training in the climate and mental health field.
- Incorporate climate and mental health into priority health system policies/components (e.g., climate and mental health as part of universal health coverage, primary healthcare and pandemic responses).

Funders, policy makers and researchers should:

- Reflect on and design culturally appropriate ways of translating evidence across varied geographic settings, population groups and languages.
- Engage with media and other actors to support the translation of evidence.
- Invest in organised advocacy campaigns on climate and mental health in the region to reduce stigma.

Conclusion

Participants from LAC perceive and experience multiple varied threats to mental health and mental wellbeing by creeping and acute climate events. Given the increasing intensity of these threats, we need to collaboratively establish fundamental principles for designing evidence-based climate and mental health interventions, supported by a platform for dissemination and implementation of these interventions. Achieving these goals will require a systems-thinking approach, operating across sectors and disciplines and should include a wide range of stakeholders from the formative stages. The task will require significant support from regional and international actors and funders but can be achieved through unified action and respectful and inclusive ways of working.

Who produced this report

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Persons with inaugural leadership roles: Ambassador Gillian Bristol and Dr. Sandeep Maharaj.

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Youth Ambassadors: Ms. Ana Gabriela Mejia and Mr. Harvey Vijay Sharma.

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Conflicts of interest

The authors have no conflicts of interest to declare.

Appendix

Connecting Climate Minds (CCM) overview

Connecting Climate Minds (CCM) is a Wellcome-funded project launched in 2023 to develop an inclusive agenda for research and action in climate change and mental health. The project has two key, intertwined aims. The first is to develop an aligned and inclusive agenda for research and action that is grounded in the needs of those with lived experience of mental health challenges in the context of climate change, to guide the field over the coming years. The second is to kickstart the development of connected communities of practice for climate change and mental health in seven global regions (designated by the Sustainable Development Goals), equipped to enact this agenda. We aim to combine the strengths of a global perspective and regional focus, and bring together diverse disciplinary perspectives into a shared vision that can ensure research is effective at addressing priority evidence gaps and informing changes in policy and practice at the intersection of climate change and mental health.

Regional Community Team

In LAC, CCM is led by a Regional Community Team (RCT), responsible for convening diverse expertise across the region and building regional capacity to create and enact the research and action agenda. The structure of the RCT is outlined below.

RCT Structure	Role	Members
Regional Community Convenor (RCC)	Responsible for developing and delivering project activities in the region, including convening and supporting a regional community of diverse expertise.	• Project Team Leader: Ambassador Gillian Bristol, Latin American Caribbean Centre (LACC), Vice-Chancellery, The UWI Mona, Jamaica • Lead Researcher/Project Manager: Dr. Sandeep Maharaj, The UWI St. Augustine Campus, • Technical Advisor: Dr. Natalie Greaves, The UWI Cave Hill • Assistant Researcher: Dr. Shamjeet Singh, The UWI St. Augustine • Assistant Researcher: Dr. Satish Jankie, The UWI St. Augustine • Communications /Administration: Mrs. Lina Torres Maestre • Coordinator: Mrs. Chandika Ganesh • Assistant: Mrs. Jacinth Seemungal

RCT Structure	Role	Members
Co-Convenors	Bringing additional breadth of expertise across disciplines and countries, providing technical advice and review, and supporting project delivery.	• Professor Enrique Falceto De Barros, Director of WONCA (World Organization of Family Doctors). Programa de Pós-Graduação em Educação em Ciências (PPGECI) at the Universidade Federal do Rio Grande do Sul (UFRGS) • Mr. Marcos Williamson, Educational Investigator and Director of the Environmental Information Centre of the Universidad de las Regiones Autónomas de la Costa Caribe Nicaragüense (URACCAN), Nicaragua • Dra. Martha Rosa Munoz, Director of FLACSO Cuba-The Latin American Faculty of Social Sciences (FLACSO), Cuba • Dr. Fresia Hernandez, National Director of the Clinical and Health Psychology Programme at the Tecnologico de Monterrey (TEC), Mexico • Dr. Dassaëve Brice, EarthMedic and EarthNurse Haiti • Dr. Clemencia Ramirez, Independent Consultant, International Migration Organisation (IMO) Assistant Co-Convenors/Dialogue Facilitators: • Dr. Tatiana Camargo, Brazilian Planetary Health Hub at Universidade de Sao Paulo and Federal University of Rio Grande do Sul. • Dr. Raquel Santiago, Planetary Health (PH) Brazil, IEA/USP • Professor Jonathan Sherin, The Healthy Brains Global Initiative
Lived Experience Advisory Group (LEAG)	Advisory board of experts with lived experience of mental health challenges in the context of climate change and/or belonging to vulnerable population groups and living with climate hazards. Drawing on their unique expertise and wisdom, LEAGs provide vital community-centered perspectives and guidance that inform the overarching approach and outputs of the project.	• Ms. Vashti Burrows, Bahamas • Ms. Gloria Blaise, Haiti • Ms. Raquel Tupinamba,Tupinamba Indigenous Council of Baixo Tapajos/Amazon, • Mr. Norton Chavarria, Karata Community, Nicaragua

RCT Structure	Role	Members
Youth Ambassador(s) (YAs)	Youth advisors (aged 18-29) with lived experience of mental health challenges in the context of climate change and/or belonging to vulnerable population groups and living with climate hazards. YAs bring unique youth-centered perspectives to the development and implementation of project activities.	• Ms. Ana Gabriela Mejia - Ecuador • Mr. Harvey Vijay Sharma - Guyana

Methods

We produced this research and action agenda through a robust and inclusive methodology to capture, combine and refine a rich diversity of perspectives while fostering connection across a growing community of practice. Experts across disciplines, sectors and countries were convened in two virtual dialogues and consulted through two online surveys.

The CCM core team developed this methodology at a global level in consultation with the RCT, a Global Advisory Board and Wellcome. Methods and materials were adapted regionally by the RCT to ensure a balance of global standardisation with regional appropriateness and flexibility. Continuous sharing between regions of processes, learnings and challenges facilitated iterative development of the methodology. The process for developing the regional research and action agendas is shown below.

Participants were recruited firstly through the networks of the RCT, CCM core team and Wellcome, with further recruitment through snowball sampling to reach a broad range of experts across disciplines, sectors and geographies.

Full methods can be found here.

Generation of research and action priorities

Priorities for research were generated, refined and finalised through the following process:

- **Developing research categories**: Through a global landscaping exercise of relevant existing climate change and mental health reviews[14–23] four broad research categories were identified as areas of critical need for further work globally. This framework was used as the basis for structuring discussions within dialogues to generate research priorities and formed the global coding framework for analysis. These were:
  - **Impacts, risks and vulnerable groups**: improving our understanding of the ways in which mental health is affected by climate change. For example: what mental health outcomes are impacted or at risk; the prevalence, severity, economic and societal costs of these impacts; and who is most vulnerable to these impacts.
  - **Pathways and mechanisms**: improving our understanding of how mental health is affected by climate change and, in particular, whether there are factors specific to climate change that increase mental health risks. This includes considering biological, psychological, societal or environmental pathways and mechanisms.
  - **Mental health benefits of climate action (adaptation and mitigation)**: understanding and quantifying when and how climate adaptation and mitigation actions, across sectors, can also have win-win benefits for mental health.
  - **Mental health interventions/solutions in the context of climate change**: identifying the most effective mental health interventions/solutions/actions to support mental health in the context of climate change, across diverse sectors. This encompasses providing support to people already experiencing negative mental health impacts and reducing risk or severity of future negative mental health impacts.
- **Generating priority research themes**: Participants in dialogue 1 were led through a structured discussion to surface their views on 1) emerging and likely mental health consequences of current and future regionally-relevant climate hazards and opportunities for mental health benefits of action in both mental health and climate, and 2) where more research is needed to understand and respond to identified consequences and opportunities.
- **Analysis**: Dialogue data (transcripts of breakout rooms and notes) was analysed using the Framework Method[24] – a matrix-based approach that allows qualitative researchers to undertake deep interrogation of transcripts and written notes.
- **Draft priority research themes**: This matrix was used in combination with data from pre-dialogue scoping (interviews/literature review/pre-dialogue survey) conducted in the region to draft a list of priority research themes. These were refined through consultation with the RCT and triangulation across breakout notes, transcripts, pre-dialogue scoping and expert consultation.
- **Refinement of priority research themes**: Research themes were shared with participants in Dialogue 2 for their feedback. Research themes were refined in response to this feedback and shared with dialogue participants and a wider sample of experts in the post-dialogue survey.
- **Finalisation of priority research themes**: A final list of priority research themes was generated based on incorporation of post-dialogue survey feedback, consultation with the RCT and regional experts, CCM core team, Global Advisory Board and Wellcome.

Priorities for action were generated, refined and finalised through the following process:

- **Developing action categories**: Through consultation with experts across the global CCM team, two high-level categories for priority actions were identified. These were: 1) creating an enabling environment for research at the intersection of climate change and mental health and 2) translating a growing evidence base into action that can respond to the mental health impacts of climate change. Within each, sub-categories were: 1) a desired future state, 2) opportunities and enablers, 3) challenges, and 4) partners and stakeholders.
- **Generating priority actions**: Participants in Dialogue 2 were led through a structured discussion to surface their views on 1) how the research agenda for climate change and mental health research could best be implemented in the region and 2) how a growing evidence base could be translated into action in policy and practice.
- **Analysis**: Dialogue data (transcripts of breakout rooms and notes) was analysed using the Framework Method (as described above).
- **Finalisation of priority actions**: An action agenda summarising insights from Dialogue 2 and outlining identified priority actions was generated based on consultation with the RCT and regional experts, CCM core team, Global Advisory Board and Wellcome.

Participants

Dialogue participants were a diverse group across geographical spread, gender, sector and discipline. All participants were invited to both dialogues, however in some cases participants were unable to attend both dialogues.

In total 45 participants attended Dialogue 1 and 30 participants attended Dialogue 2. The tables below provide a breakdown of participant characteristics.

Geographical spread:

	Dialogue 1		Dialogue 2	
Country	**Number**	**Percentage**	**Number**	**Percentage**
Bahamas	1	3%	1	4%
Barbados	1	3%	1	4%
Bolivia (Plurinational State of)	1	3%	0	0%
Brazil	4	11%	5	19%
Chile	2	5%	0	0%
Costa Rica	1	3%	1	4%
Ecuador	1	3%	0	0%
Grenada	2	5%	0	0%
Guatemala	1	3%	1	4%
Haiti	4	11%	5	19%
Hondoras	3	8%	0	0%
Jamaica	3	8%	2	8%
Mexico	3	8%	1	4%
Nicaragua	3	8%	2	8%
Saint Lucia	1	3%	0	0%
Trinidad and Tobago	5	13%	7	27%
United States of America	2	5%	0	0%

Expertise:

	Dialogue 1		Dialogue 2	
Expertise	**Number**	**Percentage**	**Number**	**Percentage**
Climate change	12	21%	7	19%
Mental health	13	23%	11	30%
Healthcare	18	32%	14	38%
Other	14	25%	5	14%
I do not know/ Prefer not to say	0	0%	0	0%

Discipline:

	Dialogue 1		Dialogue 2	
Discipline	**Number**	**Percentage**	**Number**	**Percentage**
Activism	18	13%	13	13%
Community	13	10%	10	10%
Education	19	14%	14	14%
Expert through my own lived experience	13	10%	10	10%
Funding	3	2%	3	3%
Healthcare	12	9%	9	9%
Non-governmental organisation	13	10%	10	10%
Policy	12	9%	7	7%
Research	30	22%	20	20%
Other	3	2%	3	3%

Gender:

	Dialogue 1		Dialogue 2	
Gender	**Number**	**Percentage**	**Number**	**Percentage**
Men	8	36%	12	46%
Women	13	59%	14	54%
Non-binary	1	5%	0	0%

Survey participants [iii]:

Pre-dialogue survey: 76

Post-dialogue survey: 6

Ethics, data collection and storage

Ethics

This study has been reviewed and given an ethical favourable opinion by the Imperial College Research Ethics Committee (study title: "Global Dialogues to set an actionable research agenda and build a community of practice in climate change and mental health"); study ID number: 6522690. In addition, the study protocol with necessary local adaptations was reviewed and approved by the Institutional Review Board of The UWI St. Augustine [CREC-SA. 2298/08/2023].

Data storage and sharing

Dialogues were conducted virtually on Zoom following informed consent from all participants. Dialogues and breakout groups were recorded and transcribed by third party providers (Way with Words and Absolute Translations). Survey distribution and data collection was carried out using the online platform Qualtrics. Data was stored and managed by Imperial College London using a secure server. The UWI was a Joint Data Controller for the data provided to this project for LAC and responsible for securely storing and sharing data with Imperial College London and with regional analyst teams. Data will be stored by Imperial College London for 10 years after study completion.

Glossary

For a glossary describing relevant concepts and key words for the Connecting Climate Minds research and action agendas, please download from here.

[iii] *Please note numbers are approximate and do not account for duplicate or incomplete responses.*

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