


# Intersections between climate change and mental health: New challenges for the development of care services

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During the last ten years, evidence on the intersections between climate change and mental health has increased, describing the mechanisms by which the mental health of the population is affected, exacerbating pre-existing vulnerabilities. In this context, new challenges arise for developing services, strengthening primary health care, and promoting universities as key actors in generating knowledge.

Although mental health and climate change are still emerging fields of knowledge, there has been a significant increase in scientific production in this field in the last ten years [1]. Furthermore, the COVID-19 pandemic has exposed the high mental health impact of humanitarian emergencies, contributing to a 25% increase in the prevalence of anxiety and depression and negatively impacting living conditions globally [2]. This humanitarian gap motivates reviewing how the current provision of mental health services can respond to global threats while fulfilling its role of comprehensively safeguarding the health of populations.

If we focus on the mental health landscape without explicitly considering the effects of climate change, we know that the debt is large. According to data from the World Health Organization (WHO), one in eight people worldwide will be affected by a mental health problem during their lifetime. In the case of Chile, it rises to one in three people. Depression and anxiety disorders are the leading positions among mental disorders, being two and three times, respectively, more frequent in women than in men [3].

We also know that high mental health prevalence contrasts dramatically with the response capacity of countries, with a

treatment gap of 76-85% for low- and middle-income countries and 35-50% for high-income countries [4]. Deficient financing maintains and reproduces this scenario, with a median public expenditure on mental health in the entire Region of the Americas of barely 3% of the health budget [5]. Inequity is also maintained, with more than 60% going to psychiatric hospitals, generally in urban areas, and with little comprehensive and community approach.

As McMichael points out, climate change is a "threat amplifier" [6]. Thus, its devastating effects impact the most vulnerable countries and populations in an imbalance between risk and responsibility [7,8]. The first relevant element is how the worsening of environmental conditions, the effect of climate change, and its consequences interact with the historical postponement of treating mental health issues at the population level and with a health system affected by the pandemic.

A second relevant dimension are the mechanisms through which climate change impacts mental health. These have been systematized in the literature as "direct" and "indirect" mechanisms. Primary mechanisms refer to direct exposure to extreme natural events, which increases the risk of adverse mental health outcomes. Thus, increased natural disasters, heat waves, and wildfires are highly associated with the risk of trauma, psychological distress, and increased risk of presenting symptoms associated with common mental disorders, such as anxiety disorders and depressive symptoms [9,10]. Among the relevant impacts, extreme heat events have been associated with increased emergency admissions and increased risk of morbidity and mortality in people taking psychotropic medications due to altered body thermoregulation.

The indirect impact refers to the amplification effects that climate change generates in adverse social conditions, amplifying them. Thus, the increase in climate poverty, forced displacement, armed violence, and food insecurity increase the risk of developing mental health problems. Indirect mechanisms include the chronic climatic events on living conditions. For example, the evidence describes the impact of long-term

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droughts on local economies, generating changes in economic status, with higher rates of distress, post-traumatic stress disorder, anxiety, depression, domestic violence, and suicide, especially in rural communities [11]. Likewise, climate change increases food insecurity with a greater impact on poorer communities, increasing the risk of depression in children and women.

These impacts pose new challenges for mental health services and require rethinking service planning and delivery. Community-based services, organized within general health networks and in close contact with the community, can enhance accessibility, opportunity, and adaptation, allowing them to be distributed throughout the territory. Thus, they can promote interventions that strengthen the resilience of communities through their active participation in diagnostic actions, mitigation solutions, preparedness, adaptation, and recovery.

At the primary level of care, it is necessary to strengthen the provision of psychosocial interventions focused on helping individuals and groups develop coping strategies to deal with high adversity. These same tools can be made available to specific groups such as migrants, communities exposed to violence or degradation, and changes in their habitats and ways of life. Likewise, health protection should go hand in hand with social protection, exploring the results of interventions that combine alleviating adverse social determinants with promoting resilience. An example of this is the implementation of interventions to reduce poverty or unemployment combined with adaptation strategies in the face of adverse situations generated by climate change. The role of community agents as providers of psychosocial support in the community can be optimized by improving access and the exchange of needs between people and their health centers.

Improving the communication of mental health risks associated with extreme weather events, such as upcoming heat waves, is an action that should be implemented. One of the challenges in this area is integrating existing strategies and information on the impact on mental health and risks for specific populations.

At the specialty and emergency level, it is necessary to strengthen the knowledge of professional mental health teams, for example, on the adverse interaction and increased risk in heat waves for people on psychotropic medication. It should be noted that the main population of concern is people with severe mental disorders who have long-standing pharmacological treatments and little access to primary health care. Likewise, it is necessary to avoid pathologizing groups that experience psychological distress associated with climate change and ecosystem degradation. Similarly, it is necessary to address the mental health of young people, indigenous and rural communities, along with other groups at greater risk. In these cases, medicalization should be avoided, and priority should be given to the accompaniment of new coping skills, strategies, and interventions for mitigation, preparedness and adaptation, and

advocacy actions that promote climate action as health care for all.

Finally, the role of universities and researchers is vital to strengthening the available evidence on the impacts of climate change on mental health, promoting a greater emphasis on risk exposure mechanisms, specific impacts, and effective interventions at the community level. These interventions need methodological designs that promote the participation of diverse stakeholders, collaborate in rethinking resilient mental health services, and be flexible and responsive to the new needs that global challenges present for populations' health.

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# Intersecciones entre cambio climático y salud mental: nuevos desafíos para el desarrollo de servicios de atención



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