

Climate justice is central to addressing the climate emergency's psychological consequences in the Global South: a narrative review

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Abstract

The United Nations has signalled a 'code red', marking climate change as an existential threat for humanity. The world is rapidly warming, and the consequences of climate change include an increase and intensification in flooding, droughts, wildfires, and other traumatic exposures. Although countries in the Global South have contributed least to global warming, they are the most vulnerable owing to historical inequities. The concept of 'climate justice' recognises that historical racial discrimination, class disenfranchisement, political misrecognition, and other social injustices make surviving climate change and thriving within it more challenging. This narrative review considers the psychological consequences of the climate emergency through a climate justice lens. The article discusses the unequal exposures to psychological adversities, socio-historical barriers to adaptations and, finally, institutional betrayal that complicates the experience of psychological distress. The review concludes by pragmatically discussing how psychology could support climate justice ends.

Keywords

Climate anxiety, climate apartheid, climate colonialism, climate justice, climate psychology, institutional betrayal

Climate change is widespread and rapidly intensifying. According to the United Nations' Intergovernmental Policy Platform on Climate Change's (IPCC; 2021) recent Sixth Assessment Report, the world has experienced around 1.1°C average warming since the pre-industrial age. That our planet is increasingly hotter is undoubtedly attributable to human activities and there is

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high confidence that this warming is already having adverse planetary consequences (IPCC, 2021). The United Nations Secretary-General António Guterres (2021) has signalled a ‘code red for humanity’, calling for rapid cuts in greenhouse gas emissions to avert catastrophic warming. Scientists warn that it is no longer a question about whether anthropogenic climate change exists. Instead, the question has become how devastating the impacts will be if the world continues along its current trajectory (Mann, 2021). The exposures to extreme events across a lifespan are ‘unprecedented at all warming levels’ for anyone alive today (Thiery et al., 2021, p. 3).

Severe climate change impacts, such as droughts, storm surges, and wildfires, are already experienced today. Yet, Global South countries have advocated that the world should take steps now to ensure that human-induced climate change contributes to no more than a 1.5°C increase in global temperatures. Countries in the South have argued that going beyond this target of 1.5°C would mean the difference between survival and major life-threatening consequences (Barnwell & Heleta, 2021). According to the United Nations’ IPCC (2021), on current trajectories, 1.5°C is likely to be reached or exceeded within the next 20 years and the earth is also expected to surpass 2°C warming this century, if emissions are not radically cut.

Global South countries are least responsible for climate change, yet these nations are at the greatest risk of experiencing the climate crisis’ devastating consequences (IPCC, 2021; Oswald et al., 2020; Thomas et al., 2019). Today, 100 fossil fuel companies are responsible for approximately 71% of global industrial emissions and years of multinational companies’ extractivism have left many countries in the South more vulnerable to climate change (Griffin & Heede, 2017). Billions of people in the Global South face deadly heat waves, wildfires, water scarcity, crop failures, and storm surges, among other effects, which have significant psychological consequences mediated by global socio-economic and political inequities.

Climate change is a global justice issue. We argue that a climate justice perspective is crucial to understanding specific experiences of climate-related psychological distress in the Global South. This article thus examines the increasingly significant impact of the climate macro-system on human functioning, providing a contextual framework for a more holistic and integrated understanding of human climate-related behaviour and responses (Bronfenbrenner, 1979).

A climate justice lens is applied to this narrative review to offer an overview of the main psychological consequences of global climate injustices. The review foregrounds examples from the Global South to illustrate the experiences of global inequities that should be centred within psychological perspectives – especially as these have tended to focus on Western individualistic models, which minimise contextual factors, thereby implicitly colluding with oppressive structures (Adams, 2021; Manganyi, 1977; Nicholas, 1993).

Definition of climate justice

The concept of ‘climate justice’ recognises that historical racial discrimination, class disenfranchisement, political misrecognition, and other social injustices make surviving climate change and thriving within it more challenging (Jafry et al., 2019; Pearson et al., 2021). Thus, a climate justice lens helps illuminate experientially different economic, social, health, and other climate change impacts (Levy & Patz, 2015). Climate justice also recognises that some groups’ privilege come at the cost of insecurity for others (Rice et al., 2021). This article uses the term ‘climate justice’ for consistency, but the terms ‘climate colonialism’ and ‘climate apartheid’ could also have been applied and all three are relatively interchangeable (Rice et al., 2021; Tabassum, 2021). Still, climate justice draws attention to what is equitable and just, while climate colonialism foregrounds colonial histories and the reproduction of coloniality of power, being and knowledge in today’s experiences of climate injustices (Moulton & Machado, 2019).

Psychology and climate injustice

Unequal exposures and psychological consequences

Despite contributing relatively little to the global crisis, the Global South is already highly exposed to climate change risks (Palinkas & Wong, 2021) with some regions experiencing warming at levels more than twice the global average and others, such as multiple island nations and coastal regions, face imminent risks of being submerged under expected sea level rises (IPCC, 2021; Scholes & Engelbrecht, 2021). A modelling study conducted by Thiery et al. (2021) shows that generations living in low-income countries will experience the greatest increases in adverse climate change exposures, such as droughts, heat waves, and crop failures, compared to their counterparts in wealthier nations.

In addition, climate change exposes children born today and future generations in the South to significantly more adverse events than previous generations (Thiery et al., 2021). For example, children born in 2020 in sub-Saharan Africa will be exposed to 5.9 times more extreme events than those born in 1960 (Luthen et al., 2021). Although modelling studies such as these are in their infancy, it may be fair to deduce that Global South communities are at increased risk of psychological and mental health consequences due to disproportionate increases in traumatic exposures. Climate change intensifies the severity and frequency of extreme events, and changes in climatic systems stand to introduce new extremes (IPCC, 2021).

Climate change impacts are not always sudden catastrophic events, such as flooding or wildfires, they can also present as slow and insidious emergencies, such as droughts, that place multiple stressors on all areas of everyday life, slowly eroding and unsettling normality, while introducing or exacerbating the sense of insecurity (Barnwell & Heleta, 2021; Barnwell et al., 2020; White, 2014). Climate change impacts threaten communities' survival and ways of life by exacerbating or introducing new harms that can lead to multiple insecurities in safety, livelihood, nutrition, health, psychological well-being, social cohesion, educational attainment, and other critical functions (Clayton, 2021; Manning & Clayton, 2018). Communities can experience these extreme events and their consequences as significant psychological stressors and, potentially, traumatic events (International Society for Traumatic Stress Studies, 2021).

This narrative review substantiates conclusions about the psychological consequences of climate change in the Global South through studies conducted in sub-Saharan Africa and international studies (where local studies are lacking). As authors, we feel relatively comfortable doing so as the general pathways of psychological distress post-disaster are well known. People can experience climate change-related stressors directly (e.g., injury, loss of property, financial insecurity), vicariously (e.g., seeing someone's life being threatened or witnessing mass casualties or destruction of property), or through anticipation (e.g., seeing the world changing and being aware of the direct threats to self or others) (International Society for Traumatic Stress Studies, 2021). There are common reactions to direct impacts associated with extreme events, such as droughts, flooding, and storm surges, that may be immediately felt, such as post-traumatic stress, anxiety, or depressive reactions. The extreme severity of the events and circumstances at the time can overwhelm even the best-resourced person's coping ability (Clayton, 2020). Those experiencing the loss of a loved one or destruction of property will grieve the loss in different ways, possibly presenting with sadness, hopelessness, anxiety, and despair (Pihkala, 2020; Ženko & Menga, 2019). The threat to self, others, or property can exacerbate existing mental health challenges and possibly lead to clinical levels of distress (Clayton, 2020). Paranoia, somatisation, suicide (Clayton, 2020; Papanikolaou et al., 2011), and increased hospital admissions for mental health-related reasons have also been reported (Cianconi et al., 2020). Witnessing life-threatening situations or the destruction of

property may also result in trauma reactions, experiences of loss or other forms of mental anguish (International Society for Traumatic Stress Studies, 2021). Moreover, Mushavi et al. (2020) report stigma, humiliation, and social alienation owing to the social dimensions of water insecurity, in particular.

Studies of similar impacts on children in the Global South are only beginning (Hickman et al., 2021). Yet, available evidence shows that when faced with climate-related trauma, children may turn their feelings inwards and express depressiveness, fearfulness, and hopelessness. Children may also turn their feelings outwards in the form of anger, alcohol use, and self-harm (Hickman et al., 2021).

More broadly, distress associated with climate change has often been termed *climate anxiety*. Climate anxiety is understood as psychological distress related to worry, despair, or a sense of hopelessness about the changing world and fear for the future (Pihkala, 2020). Although there is increasing evidence of climate distress in the Global South, studies on climate anxiety in the South are limited, lack robust methodologies, and vary considerably. For instance, one study reported that only about 1 in 10 participants from Gabon, Rwanda, Morocco, Algeria, and Congo reported climate anxiety, but recognised sampling limitations (Heeren et al., 2021). Meanwhile, in another more robust study, Hickman et al. (2021) found that up to 60% of Nigerian participants reported climate anxiety. Methodological differences exist: for instance, the range of emotions defined under ‘climate anxiety’ by Hickman et al. (2021) is notably broader than that described by Heeren et al. (2021).

Only recently has psychology begun to pay more attention to the socio-political context of climate distress (Adams, 2021). The psychological impacts of climate change place a profound burden on individuals and families, resulting in social upheavals that can reconstitute daily life. For instance, 20.7% of African research participants from Gabon, Rwanda, Morocco, Algeria, and the Congo experienced daily impediments due to climate distress (Heeren et al., 2021). Barnwell et al. (2021) warn, however, against solely framing distress in clinical terms and argue for socio-political action to address societal justice issues – as those with the least resources are the most vulnerable – and face considerable constraints to adapt.

Unjust socio-historical barriers to adaptation

To fully comprehend climate change’s psychological consequences in the Global South, particularly those nations with the least access to resources, socio-historical barriers to adaptation must be recognised. Climate-related distress is not only a reaction to climate change but is mediated by the ability to adapt to the various ensuing crises, which is – to a large extent – contingent on access to adequate resources (Barnwell, 2021; Williams, 2021). A current corollary for this principle is the COVID-19 pandemic, with research indicating that the poorest countries are the most adversely affected (Sanchez-Paramo et al., 2021). Within many countries, the ongoing social determinants of health inequalities means COVID-19 has effectively been aggravated, with adverse impacts (including mortality rates) more severely experienced by those from disadvantaged backgrounds (Mishra et al., 2021). From a political psychology perspective, an individual, community, or society’s ability to adapt to the climate (or pandemic) emergency is inseparable from the global socio-political arrangements that historically structure daily life – and that often privileges some lives over others.

For example, countries that have accumulated wealth through colonial extractive policies have significantly more means at their disposal to invest in adaptation than countries that were subjected to these colonial administrations (Williams, 2021). The historical privileging of Euro-American hegemony – although waning – and other powers, such as China and Russia, across the world

continues to undermine postcolonial development (see Mignolo, 2021). Western interventionism, sanctions, and unbridled global extractivism are often at the expense of host communities, even though it is framed as options to develop nations recovering from the colonial legacies (see Menton & Le Billon, 2021; Mignolo, 2021). The distribution of wealth reflects this accumulation through extraction where countries with colonial legacies are financially poorer than those who have historically benefitted (Holton, 2020). However, even in the richer nations, significant wealth inequalities can also mean variable adaptation response possibilities across their populations – for example, the lack of health and social welfare resources for many in the United States of America (Williams, 2021).

As our planet warms, countries will direct resources towards specific measures to ‘secure’ parts of society (i.e., what has been termed the ‘climate privileged’), while mainly creating insecurity for most of the world’s population (Rice et al., 2021). For instance, climate change produces forced displacement and climate refugees who are met with wealthier countries’ increasing securitisation at their borders (UNHCR, 2020). Those who already experience social alienation, stigmatisation and brutality owing to societal inequities stand the risk of being left behind (Sultana, 2021). Racism, sexual and gender-based violence, patriarchy, ableism, xenophobia, and other isms and schisms put some people at more risk than others (Sultana, 2021; Williams, 2021). In addition, people with pre-existing conditions, such as those living with HIV, diabetes, and physical and mental disabilities, are at increased risk, owing to vast income disparities and weak state support (Chersich et al., 2018).

For instance, Black women living in a mine-affected community have higher levels of unemployment – despite being more educated than men – and are at greater risk of HIV, owing to how racism and patriarchy have historically structured the mining industry (Benya, 2015; Steele et al., 2019). Furthermore, fence line communities – living adjacent to industries emitting toxins, historically Black, Indigenous, or People of Colour – are at increased risk (Johnston & Cushing, 2020). Exposed to environmentally unhealthy living conditions, residents may also experience participatory, procedural, and corrective injustices (Barnwell et al., 2020; Boyles et al., 2017). These social justice issues – combined with fears over the competition with industry over scarce water resources – contribute to complex and intersectional experiences of climate-related distress (Barnwell, 2021; Barnwell et al., 2020).

Furthermore, land and environmental defenders resisting extractive projects may significantly prevent new emissions but are often violently targeted. Global Witness (2021) reported that 2020 set the record for the highest number of environmental defenders killed in recent years. In general, human rights violations – that have insurmountable psychological consequences, such as complex trauma – are expected to increase worldwide due to securitisation around the climate emergency (Adger et al., 2014; Barnwell & Heleta, 2021). Thus, psychological distress associated with climate emergency is inseparable from these broader experiences of exclusion and human rights violations within society, rooted in unjust socio-political arrangements.

In the Global South, gross socio-economic inequality, poverty, weakened institutions, a lack of public funding and material means, not only challenges adaption but threatens to amplify conflicts and historical wounds, potentially disrupting and uprooting communities (Barnwell & Heleta, 2021; Sakaguchi et al., 2017). Today, the climate and ecological crises are creating unprecedented humanitarian needs stemming from climate-exacerbated conflicts, food insecurity, and mass displacement (UNHCR, 2020).

The various psychological adversities that are related to climate change exposures, exacerbated by historical social injustices, accumulate over a lifespan, possibly increasing psychological impacts over time – akin to Straker’s (2013) notion of ‘continuous traumatic stress disorder’, initially described during civil conflict in apartheid South Africa. In much of the Global South, these

accumulated traumas and stressors get shifted onto fragile or non-existent social and health care systems that, even currently, do not meet most people's basic needs (Barnwell, 2021). The treatment gap for people requiring mental health care in low- and middle-income countries is large (World Health Organization, 2008). Even relatively well-resourced countries in Africa, such as South Africa, face a 92% gap in mental health care services with resources overwhelmingly concentrated in major urban centres (Docrat et al., 2019). Without basic services and access to free, accessible universal health care that readily caters for the type of medical and psychological care required, it is unthinkable that nations will be able to absorb the demand resulting from increases in climate exposures.

It is not only socio-historical barriers to adaptation that increase the risk of adverse exposures to psychological adversities, however, but also how governments and other institutions respond to these injustices will undoubtedly further influence climate-related psychological distress.

Institutional betrayal

Society's response to climate injustices will have a tremendous bearing on psychological outcomes. In South Africa, Gabriel Klaasen from the youth climate justice movement African Climate Alliance has suggested that climate inaction is a form of 'mental injustice' (Centre for Environmental Rights, 2021). Among health professionals, the concept of institutional betrayal is used to refer to the perpetration of wrongdoings, or the failures to prevent or respond to transgressions, by institutions that have been ostensibly tasked to represent or 'protect' citizens (Smith & Freyd, 2013). Psychiatrist Lise van Susteren (2018) was probably the first to apply institutional betrayal in her forensic report for the Juliana versus the United States of America climate-related lawsuit filed by 25 youth plaintiffs. This case is still in progress but has sparked several other similar climate litigations around the world. For instance, in a climate-related lawsuit at South Africa's Pretoria High Court, Barnwell (2021) also made the case that South Africa's continued investment in coal-fired power, and the country's delay in climate action against a backdrop of poor health care services, compound climate-related distress and traumatic experiences.

Globally, there is insurmountable evidence to suggest that governments and multinational companies not only knew about climate change and the harms to the planet for decades, but actively tried to suppress this knowledge to delay the needed climate actions (Mann, 2021). Institutional betrayal is reflected in measures to actively silence climate scientists and by the industry's deliberate efforts to sow doubt about climate change and science among the public (Mann, 2021) while lobbying for the watering down of the IPCC's findings and recommendations (BBC, 2021). These subversive acts are directed at public interest institutions and bodies that hold decision-making power that can help avert the climate crisis (Mann, 2021). Moreover, institutional betrayal can be experienced, when community voices are invisibilised, ignored, or actively silenced (Barnwell, 2021).

Although experiences of climate injustice are understudied, there is evidence to show that institutional betrayal is experienced quite broadly. An international poll conducted in 10 countries found that most children expressed significant climate-related distress, including fear, sadness, anxiousness, anger, and despair (Hickman et al., 2021). Climate-related worry was positively associated with a sense of institutional betrayal. The polling study also indicated that those in Global South countries express higher levels of institutional betrayal, concerning climate-related distress. Although they do not directly connect with the potential for psychological harm, climate psychologists clarify that youth rely on the adult world to make socially just decisions and responding in any way otherwise is a form of generational abandonment (Hickman et al., 2021). Institutional betrayal draws attention to governments' responsibilities to prevent psychological harm. For instance,

commitments towards mental health have been cited in the German Constitutional Court's ruling that the freedoms of youth and future generations are violated by the German Federal Climate Law (Klimaschutzgesetz: see BVerfG, 2021, para 22).

Discussion and concluding remarks

It is clear that the severity and intensity of lifetime exposures to climate-related psychological adversities for those living in the Global South will depend on global collective action for climate justice. The review has demonstrated that countries in the Global South are particularly vulnerable to climate emergencies, due to historical global inequities, despite being least responsible for the crisis. Within this context, the discussion highlights essential considerations for psychology in its relationship to climate change and the Global South, focusing on the need to centre voices from the Global South (Rother et al., 2021). This involves providing support and protection for environmental defenders (often the dispossessed indigenous owners of the land), redistributing resources and wealth, developing psychological models to embrace human rights, eco-systemic and decolonial perspectives, and harnessing critical community psychology approaches.

Centring the voices of at-risk populations

Given that the climate emergency does not affect everyone equally, individuals, families, and communities in the Global South are already experiencing life-threatening weather events and disruptions to their ways of life. However, most psychological research on the ecological distress comes from Global North contexts and populations (Galway et al., 2019). Communities most affected in the Global South need to be centred in planning, monitoring, research, and the decisions that affect their interests (Fernandes-Jesus et al., 2020). Research should focus not only on climate change impacts but also be desire-centred, focusing on what communities believe will assist them in better navigating the climate crisis. These participatory processes must be inclusive, recognising and reflecting diversity as the climate emergency reflects racialised, gendered, and class issues.

Therefore, significantly more attention needs to be paid towards intersectional factors within these settings. Psychology must centre the experiences of those who, for instance, live with pre-existing health conditions or face social neglect and deprivation owing to unjust social arrangements. Moreover, those who are most longitudinally exposed – the youth and future generations – must also be included. There is also a need to respectfully foreground indigenous land defenders and other community stakeholders' local and indigenous ecological knowledge systems, alternative models and practice (Filho et al., 2021; Suffla & Seedat, 2021).

Reinforce human rights

Psychologists can reinforce human rights within the climate crisis through strategic documentation, expert testimony, public education, and advocacy (Hagenaars et al., 2020). For example, forms of documentation exercises and the provision of expert opinion to the court system may help prevent or correct injustices that could result in profound psychological losses and damages. Climate-related lawsuits have benefitted from psychological expertise (Barnwell, 2021). Furthermore, psychological research on climate anxiety has supported the UN Secretary-General's moral case for action and is used more broadly to recognise the concerns of youth climate activists (Hickman et al., 2021). Psychological expertise has also been used to support public education and advocacy (see Global Network of Psychologists for Human Rights, XR Rebellion and Avaaz).

These documentation processes should ensure that the political, economic, social, psychological, spiritual, and moral costs of climate are accounted for.

Democratising of psychological knowledge

Although psychology's most obvious strength is its ability to provide spaces where concerns about the climate crises are not only recognised but affirmed (Whomsley, 2021), the gap in mental health care in the Global South calls for innovative approaches. Psychologically supportive spaces can be offered in the form of individual therapy and group sessions assisting in working through difficult emotions, making meaning of their climate related circumstances, and supporting those in taking communal action to address this, for example, lifestyle changes and climate activism (Whomsley, 2021). However, given the population demands and the caveat not to individualise systemic injustices, there is a need to adapt or design new community-led models from and for the Global South, which faces extreme mental health care gaps (World Health Organization, 2008). Peer-support and task sharing strategies are an option, although it cannot be the only solution, as no significant peer-support models across sectors have been widely adopted to date. Finally, the fossil fuel industry has also long shifted blame and responsibilities onto individuals, and psychologists should not fall into this trap (Fernandes-Jesus et al., 2020).

International solidarities

The magnitude of systemic change required to address the crisis demands that psychology engage systemically on multiple geopolitical fronts strategically directed at decision-makers to influence deep carbon emission cuts. Much energy needs to be directed at companies and state institutions that hold the decision-making power to lead the world on a path that averts the most severe impacts of the climate crisis (Hickman et al., 2021). Psychologists need to forge coalitions across differences by witnessing the profound psychological consequences of the climate crisis, creating public pressure and working with business and governments to steer action (Whomsley, 2021).

Within this context, psychologists in the Global North are in a powerful position, owing to their geographic proximity to multinational corporations, high carbon-emitting governments, and significant consumer markets. Significant attention needs to be placed on changing consumers' behaviours. This behavioural focus should not only be placed on individual actions, but a public health approach should inform public education, policy and regulatory changes, and include addressing proponents of inaction that impede adaptive responses (Brick et al., 2021; Gifford, 2011; Whomsley, 2021). Given that global inequities and the North's relative wealth is historically founded on the colonial 'enterprise', there is also a strong case for colonial/climate reparations (Perry, 2020; Táíwò, 2022). Furthermore, mental health professionals must also continue to direct actions towards their institutions to reinvest their assets in investments that do not damage the planet (Royal College of Psychiatrists, 2021). It is encouraging that psychologists in the Global North are involving themselves in climate justice movements (Francescato, 2020), not only providing psychosocial support to frontline environmental defenders but also creating advocacy and awareness campaigns, and sometimes themselves shouldering risks (British Psychological Society, 2020).

The training of psychologists thus needs to foreground global issues, local knowledges and planetary concerns within their policies, ethics, and training curricula (Hagenaars et al., 2020; Watkins & Ciofalo, 2011). The climate emergency requires courage and compassion, and an unwavering commitment to truth, transparency, participation, and social justice, for any meaningful global solution.

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