



YOUTH CLIMATE ANXIETY: EXPLORING THE PSYCHOLOGICAL IMPACT OF CLIMATE CHANGE ON YOUNG PEOPLE

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ABSTRACT

Climate change has evolved into a pressing psychological challenge for today's youth, beyond its well-known environmental implications. This research investigates the prevalence and intensity of climate anxiety among young individuals in Bangalore, India. Using a structured questionnaire distributed to 384 respondents, the study analyzes emotional responses, cognitive patterns, and the effect of climate anxiety on daily functioning and well-being. The findings reveal that youth experience considerable emotional and cognitive distress linked to climate change, impacting sleep, academic performance, and social engagement. These results emphasize the need for holistic mental health interventions and youth-focused climate education.

KEYWORDS: *Climate anxiety, Youth mental health, Environmental psychology, Climate change, Mental Stress.*

INTRODUCTION

The worsening global climate crisis is becoming more than just an environmental or economic problem; it is increasingly becoming a psychological problem for many youths who will be subjected to the real implications of today's environmental policies and practices. More youth are experiencing climate anxiety, which is a persisting worry about environmental catastrophe, as a result of the anticipated impacts of climate change and the existing changes in the climate. Although most of the literature acknowledges climate anxiety as a rational response to objective facts, climate anxiety is developing into a mental health issue of significance—one that warrants further investigation. There is ample evidence of the far-reaching implications for mental health associated with climate change. For example, youth are indicating emotional instability, well-being, and overall mental health concerns at the global level.

Hickman et al. (2021) report that children and young people around the world are experiencing fear, sadness, anxiety, anger, helplessness, and guilt because they perceive governments as being insufficient ("Climate anxiety in children and young people around the world"). Wray (2022) stipulates that these emotional responses are rational regardless of the perceived control over environmental outcomes or lack of mental health resources that address eco-anxiety ("Psychological and Emotional Responses to Climate Change"). Climate anxiety is particularly relevant among youth due to heightened awareness of climate change via education, social media, and personal recognition of climate disasters.

Karlin (2022) explores how exposure to climate-related events negatively affects mental health outcomes and can influence behavioral intentions to mitigate climate change ("Climate change and youth mental health"). Trinity (2020) also discusses how emotional responses such as anxiety and depression are reported more frequently among children and adolescents, especially among youth in context to their exposure to climate change created by massive natural disasters ("Eco-Anxiety in Children").

The youth are psychologically impacted due to climate change not just emotionally but also cognitively, socially, and in terms of overall quality of life. According to Lee (2023), escalation in global temperatures and weather events can make existing mental issues worse as a result youth become less "productive" and more "disabled" and withdrawn in their daily life. As mentioned in the study 2024, "Youth Mental Health and Climate Change - Systematic Review", many author systematic review on climate change created a need for resilience-building strategies and adaptive response waste and viral health challenges.

A study by Coffey et al. (2023) shows that youth environmental concerns are strongly connected to mental health and well-being, with significantly high levels of anxiety and stress related to witnessing ecosystem degradation and potential irreversibility. Similarly, Panu



Pihkala (2022) observes that the psychological distress of young people is often fueled by climate-related grief which is described as the mourning of the inevitable loss of beloved places in nature. “Eco-Grief and Climate Anxiety”.

In addition to Ojala (2022), the emotional responses of youth to climate change can greatly vary on their coping strategies and belief systems. According to Ojala 2022, youth that put the stress of climate change to practical use in various ways experience less anxiety than youths that feel overwhelmed and powerless. One view supporting the above idea is Stevenson and Peterson (2023). They argue climate change education and activism for the youth can curb hopelessness and help with mental health (“Youth Climate Activism and Mental Health”).

LITERATURE REVIEW

Climate change is affecting the mental health of youths and young adults according to a plethora of research. Studies being done worldwide try to see how climate change knowledge is connected to the youth’s emotional states and mental health.

Several scholars have emphasized the layered nature of climate change's psychological impacts. Doherty and Clayton (2011) proposed a tripartite categorization—direct impacts (trauma from disasters), indirect impacts (concern from media or scientific reports), and psychosocial impacts (community stress, displacement, and chronic uncertainty). This framework expands climate change from an environmental issue to a deeply embedded psychological and social concern. These authors argue for a systems-level understanding of climate change, where mental health effects are mediated by factors like media exposure, social context, resilience, and socioeconomic status. The authors encourage psychologists to adopt a broader role in climate literacy and resilience-building interventions.

Hickman et al. (2021) studied 10 countries where about 60% of young people stated to be “very” or “extremely” worried about climate change. As a result of the study, it was found that climate anxiety is almost universal and associated with the view that authorities are not doing enough to deal with climate change and environmental degradation. Pihkala (2022) adds to this research with “eco-grief,” individuals grieving over the loss of their favourite natural places because of climate change. The grief that one suffers, especially the youth, related to climate change, will mostly be due to the feeling of not being able to do anything to change this (“Eco-Grief and Climate Anxiety”).

In addition, Ojala (2022), highlights that the young people’s feelings on climate change depend significantly on their coping mechanism. According to her study, youth who cope by actively participating in environmental efforts can better manage their anxiety than those who avoid or deny such efforts. Stevenson and Peterson (2023) echo this, saying that when young people are educated and engaged in climate advocacy, it helps to overcome feelings of hopelessness and enhances resilience.

A study conducted by Lee (2023) notes that climate anxiety can hinder the cognitive, social and daily functioning of youth. As a result, there is a need to carry out further mental health targeted interventions to help with the climate change burden on youth. Lee (2023) is a study on the cognitive and social effects of climate anxiety. The mental health repercussions of climate change have been further examined through the work of Coffey and others (2023). Young people are experiencing increased levels of stress, anger, and hopelessness, as a result of climate anxiety.

Additionally, Karlin (2022) states that the media impact young people’s perceptions of climate change. Seeing something again and again makes people think it is a big problem. Seeing climate change in the news all the time has made many young people (aged 16-24) feel anxious and/or hopeless. Despite this, “positive framing,” like showcasing viable climate solutions and youth activism, can lessen anxiety and motivate active responses. Through climate change and youth mental health, positive framing is reflected.

Another major contribution is from Lawrance et al. (2022), who propose a multi-layered framework derived from social-ecological theory. Their model accounts for the interacting factors that influence youth mental health in the face of climate change—ranging from individual traits and family context to institutional trust and environmental degradation. This framework draws on Bronfenbrenner’s ecological systems theory and emphasizes how disruptions at each level—from local infrastructure to global policies—can deteriorate mental well-being. Their findings indicate that climate change impacts young people differently than crises like COVID-19, with climate change eliciting higher levels of guilt, powerlessness, and loss of trust in leadership.

The climate anxiety scale developed by Clayton and Karazsia (2020) marked an empirical step forward in the operationalization of this condition. Their psychometric tool differentiates between cognitive concern and functional impairment caused by climate awareness. In their model, eco-anxiety is treated as a spectrum rather than a clinical disorder, with low to moderate levels potentially motivating pro-



environmental behavior, and higher levels posing risks for mental health dysfunction. Similarly, Meo et al. (2025) utilized the Hogg Eco-Anxiety Scale in their cross-sectional survey across the Global South, identifying a correlation between climate anxiety and educational level, income, and gender—indicating the need to incorporate sociodemographic variables into any explanatory model.

Studies focusing on developmental psychology also highlight the distinct vulnerability of children and adolescents. Burke et al. (2018) argued that climate change disrupts core developmental processes—emotional regulation, cognitive performance, and identity formation—through both acute and gradual exposures. Their model emphasizes that children are psychologically impacted not only by direct disasters but also by long-term ecological changes and the chronic stress of climate narratives. These findings suggest the need for preventive interventions at schools and community levels to support adaptive development in a climate-changed world.

Collectively, these models offer diverse but complementary perspectives on youth climate anxiety. Some emphasize psychological mechanisms (e.g., grief and loss, cognitive appraisal), while others highlight structural dimensions (e.g., socioeconomic factors, institutional failure). Despite this richness, significant gaps remain. Few studies are longitudinal, limiting our understanding of how climate anxiety evolves over time or how early exposure impacts adulthood. There is also a lack of consensus on terminologies such as eco-anxiety, solastalgia, and climate distress, complicating cross-study comparisons.

Future research should aim to integrate these frameworks into more unified, interdisciplinary models that account for emotional, behavioral, social, and ecological variables. Theoretical development should also be complemented by intervention-based studies that test how meaning-making, social support, and climate activism mediate anxiety and promote resilience. A deeper focus on underrepresented populations in the Global South, and among Indigenous and marginalized youth, would also provide a more equitable and comprehensive understanding. As youth continue to raise their voices on the global stage, it becomes imperative that scientific inquiry keeps pace with their evolving psychological needs and perspectives.

RESEARCH GAP

Even though there is a lot of information available on climate anxiety in children and young people, we do not know much about its long-term psychological effects. While climate anxiety has been extensively studied among youth in the developed countries like U.S and Canada, it has received limited research attention in young people in India. This study aims to address this gap by examining the prevalence and intensity of climate anxiety among Indian youth, specifically students in Bengaluru, who are increasingly aware of climate change due to their academic exposure and urban living experiences.

INTRODUCTION FOR THE RESEARCH METHODOLOGY

Understanding the psychological impact of climate change on young people requires a context-specific and empirically grounded methodological approach. Given the subjective and evolving nature of climate anxiety, this research relies on primary data collection through a structured questionnaire to obtain direct insights from the target population—young adults in higher education. Specifically, the data was collected from MBA students across multiple institutions in Bangalore, a city known for its educational hubs and increasing awareness of sustainability and environmental issues among youth.

The decision to focus on MBA students stems from their exposure to global challenges through academic discourse, business ethics, and sustainability courses, making them an ideal group to evaluate perceptions and emotional responses to climate change. The questionnaire was carefully designed to capture a range of variables, including emotional symptoms of climate anxiety, personal concern for environmental futures, perceived agency, and behavioral responses. It also included sections on demographic details such as age, gender, academic institution, and socioeconomic background to allow for deeper analysis and comparison across subgroups.

Using a quantitative approach ensures the systematic collection and analysis of data, enabling the identification of patterns and correlations across key psychological and contextual dimensions. The structured format of the questionnaire promotes consistency in responses, while its self-administered nature encourages honest and reflective participation. A total of 384 responses were collected from MBA students enrolled in various colleges and universities in Bangalore.

This study employs a quantitative research design using the survey method as its primary data collection technique. A structured questionnaire was developed to assess the psychological impact of climate change on youth, focusing specifically on symptoms of climate-related anxiety, cognitive rumination, daily functioning, and subjective well-being.



The target population comprised youth residing in Bangalore, India. A total of 384 respondents aged between 15 to 30 years participated in the study, ensuring a robust sample size for meaningful statistical analysis. The sampling was stratified by age and gender, with 47.9% male and 52.1% female respondents. The age distribution included 2.6% in the 15–17 age group, 36.5% in 18–21, and 60.9% in 22–30 years. A notable 96.9% of respondents came from urban areas, reflecting Bangalore's predominantly metropolitan demographic.

The questionnaire included three key categories:

1. Climate Anxiety Triggers (TH1–TH5) – emotional responses to thinking about climate change.
2. Impact on Daily Functioning (MC1–MC4) – interference with work, sleep, and social life.
3. Cognitive and Belief Patterns (TS1–TS7) – attitudes and perceptions about climate change and its solutions.
4. Well-being Indicators (IV1–IV7) – feelings of optimism, clarity, and emotional resilience.

Data were analyzed using SPSS software, focusing on frequencies, percentages, and descriptive statistics.

ANALYSIS AND FINDINGS

The findings highlight that a significant proportion of Bangalorean youth experience symptoms of climate anxiety.

Sample Profile (N = 384)

Background Factor	Group	n	%
Gender	Female	200	52.1
	Male	184	47.9
Age	15–17	10	2.6
	18–21	140	36.5
	22–30	234	60.9
Residential Area	Urban	372	96.9
	Rural	12	3.1

The sample consisted of a nearly balanced gender distribution, with 52.1% female and 47.9% male participants. The majority of respondents (60.9%) were in the age group of 22–30 years, followed by 36.5% in the 18–21 category, indicating a strong representation of late adolescents and young adults. Additionally, a significant proportion (96.9%) resided in urban areas, suggesting that most participants were likely to have higher exposure to climate change discourse via media, education, and environmental events.

Table 1. Cognitive and Emotional Indicators from the Climate Change Anxiety Scale (CCAS)

Statement	Never (%)	Rarely (%)	Sometimes (%)	Often (%)	Always (%)
Difficulty concentrating	3.4	13.0	38.8	32.6	12.2
Difficulty sleeping	3.6	11.7	34.9	26.8	22.9
Feeling unable to handle climate change	4.4	10.7	36.5	28.4	20.1
Isolating to reflect on climate feelings	3.9	16.7	34.9	24.5	20.1
Questioning emotional reactions	2.9	13.8	38.0	30.2	15.1

Participants exhibited significant emotional and cognitive distress due to climate change. For example, 38.8% reported that thinking about climate change made it “sometimes” difficult to concentrate, 32.6% said “often,” and 12.2% said “always.” Similarly, 22.9% said it always made it difficult to sleep, while 26.8% reported it occurred “often.” Cognitive rumination was also prevalent, with 36.5% “sometimes” wondering why they couldn’t handle climate change better, and 20.1% experiencing this “always.” Notably, 20.1% of participants said they “always” withdrew from others to reflect on their feelings regarding climate change.



Table 3. Attitudinal Beliefs Toward Climate Change

(Likert Scale: 1 = Strongly Disagree to 5 = Strongly Agree)

This table presents respondents' beliefs about climate change seriousness, perceived impact, and their expectations of future mitigation

Statement	Mean	Std. Dev	Agreed (%)
The threats should be taken more seriously	4.25	0.688	85.7
I am worried about its consequences	4.40	0.715	86.4
It is a phenomenon that is harmful to humans and nature	4.27	0.817	84.9
The threat of climate change is exaggerated	2.76	1.010	14.0
It only has positive consequences for our part of the world	2.57	0.962	9.6
Only people in other parts of the world will be affected	2.19	1.091	14.3
Technology will solve the problem	3.15	1.198	43.7

Participants overwhelmingly recognized the severity of climate threats. Over 53.1% strongly agreed and 33.3% agreed that they were worried about the consequences of climate change. Furthermore, 46.1% strongly agreed and 38.8% agreed that climate change is harmful to both humans and nature. Interestingly, 42.4% responded neutrally when asked whether climate threats were exaggerated, and only 13.0% strongly agreed that technology will solve the crisis, indicating both concern and a level of uncertainty or skepticism about proposed solutions.

Table 3. Psychological Well-being (SWEMWBS Shortened Scale)

(Scale: 1 = None of the time, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = All of the time)

This table assesses participants' general mental well-being using items from the Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS).

Item	Mean (M)	SD	% "Agreed"
I've been feeling optimistic about the future	3.27	0.89	42.5%
I've been feeling useful	3.23	1.05	41.2%
I've been feeling relaxed	2.98	1.04	35.7%
I've been dealing with problems well	2.97	1.08	34.6%
I've been thinking clearly	3.02	1.11	37.5%
I've been feeling close to other people	3.14	1.06	39.1%
I've been able to make up my own mind about things	3.20	1.10	40.8%

Self-reported well-being indicators suggest moderate mental health levels among respondents. On a 5-point Likert scale, the mean score for feeling "optimistic about the future" was 3.27, while scores for feeling useful (M=3.23), relaxed (M=2.98), and dealing with problems well (M=2.97) suggest fluctuating or low emotional resilience. A significant portion reported feeling "rarely" or "none of the time" optimistic (36.5%) or useful (43.5%). The results show that climate anxiety may be contributing to diminished psychological well-being, especially in areas like emotional balance and self-efficacy.

CONCLUSION

This study examined climate anxiety among urban youth in Bangalore using a multidimensional survey reflecting cognitive-emotional symptoms, functional impairment, attitudinal beliefs, and general well-being. Findings demonstrate that a substantial proportion of respondents experience moderate to high levels of climate-related distress, particularly in terms of concentration and sleep disturbance, emotional rumination, and interference with academic or social functioning. These results provide emerging evidence for the



psychological impact of climate change on Indian youth, contributing to the global discourse on eco-anxiety in adolescent and young adult populations.

Our study aligns with previous research suggesting that climate anxiety is distinct from general environmental concern and should be treated as a unique psychological construct (Clayton & Karazsia, 2020; Hickman et al., 2021). While a majority of youth indicated high awareness of climate change risks, fewer reported severe symptoms of anxiety, highlighting the importance of differentiating between cognitive concern and functional mental health impairment. Nonetheless, disrupted sleep, reduced motivation, and emotional withdrawal reported by participants indicate that climate change is already burdening youth mental well-being in measurable ways.

Notably, while most respondents viewed climate change as an urgent and serious issue, levels of resilience and well-being—as measured by SWEMWBS indicators—were only moderate. This suggests a risk of long-term psychological fatigue, especially if the emotional burden of climate responsibility is not matched by adequate support structures or agency-enhancing interventions. In this context, climate anxiety may act both as a risk factor for psychological distress and, potentially, as a motivator for pro-environmental behavior (Verplanken et al., 2020).

Strengths of the current study include a robust urban youth sample, the use of an adapted multi-item survey format, and alignment with validated tools such as the Climate Change Anxiety Scale (CCAS) and SWEMWBS. However, reliance on self-report data presents limitations, including potential underreporting or central tendency bias.

Expanding research across rural and semi-urban youth populations in India will also help determine whether experiences of climate anxiety differ based on direct exposure to environmental degradation. Importantly, policy responses and educational systems must recognize youth climate anxiety as a growing mental health priority, ensuring that the next generation is equipped not only with knowledge, but also with emotional tools and societal support to confront the climate crisis.