

# PREDICTORS OF CLIMATE ANXIETY: AN INTEGRATIVE FRAMEWORK

## PREDICTORES DA ANSIEDADE CLIMÁTICA: UMA ESTRUTURA INTEGRATIVA

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### Abstract

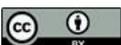
Climate anxiety is an emerging psychological phenomenon reflecting the emotional, cognitive, and behavioral responses of individuals to the climate crisis. It is characterized by a persistent fear of environmental catastrophe amid an increasingly uncertain global environment. Adopting an integrative review approach, this review proposes a theory-oriented integrative framework synthesizing key predictors of climate anxiety, drawing on insights from psychology, sociology, media studies, and environmental sciences. Major predictors include demographic factors (age, gender, education), psychological factors (generalized anxiety disorder, risk perception, environmental identity), social factors (knowledge about climate change, media exposure), and experiences with extreme natural disasters. By conceptually integrating empirical findings across disciplines, organizing these predictors into a coherent framework enhances understanding of the multifactorial and interacting mechanisms that shape climate-related distress. Rather than aiming for exhaustive study inclusion or quantitative aggregation, this integrative perspective informs the design of educational programs, public health initiatives, and policies that acknowledge climate-related distress while promoting adaptive coping and constructive engagement. Overall, the review clarifies the conceptual pathways underlying climate anxiety and provides a foundation for future theory-driven and empirical research, contributing to both theoretical development and applied practice in addressing the psychological impacts of climate change.

**Keywords:** Demographic Factors. Experience With Extreme Natural Disasters. Predictors Of Climate Anxiety. Psychological Factors. Social Factors.

### Resumo

A ansiedade climática é um fenômeno psicológico emergente que reflete as respostas emocionais, cognitivas e comportamentais dos indivíduos à crise climática. Caracteriza-se por um medo persistente de catástrofe ambiental em meio a um ambiente global cada vez mais incerto. Adotando uma abordagem integrativa, esta revisão propõe uma estrutura integrativa orientada pela teoria, sintetizando os principais preditores da ansiedade climática, com base em insights da psicologia, sociologia, estudos de mídia e ciências ambientais. Os principais preditores incluem fatores demográficos (idade, gênero, escolaridade), fatores psicológicos (transtorno de ansiedade generalizada, percepção de risco, identidade ambiental), fatores sociais (conhecimento sobre mudanças climáticas, exposição à mídia) e experiências com desastres naturais extremos. Ao integrar conceitualmente as descobertas empíricas de diversas disciplinas, a organização desses preditores em uma estrutura coerente aprimora a compreensão dos mecanismos multifatoriais e interativos que moldam o sofrimento relacionado ao clima. Em vez de buscar a inclusão exaustiva de estudos ou a agregação quantitativa, essa perspectiva integrativa orienta o desenvolvimento de programas educacionais, iniciativas de saúde pública e políticas que reconheçam o sofrimento relacionado ao clima, promovendo, ao mesmo tempo, estratégias de enfrentamento adaptativas e engajamento construtivo. Em geral, a revisão esclarece os caminhos conceituais subjacentes à ansiedade climática e fornece uma base para futuras pesquisas teóricas e empíricas, contribuindo tanto para o desenvolvimento teórico quanto para a prática aplicada no enfrentamento dos impactos psicológicos das mudanças climáticas.

**Palavras-chave:** Fatores Demográficos. Experiência com Desastres Naturais Extremos.



## 1 INTRODUCTION

Climate change is intensifying and is increasingly recognized as one of the primary threats to both mental and physical health (Whitmarsh *et al.*, 2022). Beyond its environmental and economic consequences, climate change increasingly functions as a chronic psychological stressor, shaping how individuals perceive their future, safety, and sense of control. As climate change exerts psychological pressure, novel phenomena have emerged in the realm of human emotional experience, among which climate anxiety has gained particular scholarly and societal attention (Pihkala, 2020).

Climate anxiety is defined as an elevated emotional, cognitive, or somatic distress in response to the perceived risks posed by climate change (Whitmarsh *et al.*, 2022). According to Searle and Gow (2010), climate anxiety refers to anxiety related to the global climate crisis and the threat of environmental disasters resulting from it. Pihkala (2020) identifies key symptoms of climate anxiety as sleep disturbances, insomnia, mood swings, heightened arousal, or fatigue. Additional manifestations may include panic attacks, chest tightness, and loss of appetite. When severe, climate anxiety can impair an individual's ability to function effectively in everyday life (Whitmarsh *et al.*, 2022). Although climate anxiety is not currently recognized as a formal clinical diagnosis, accumulating empirical evidence suggests that it represents a psychologically meaningful and functionally relevant form of distress, affecting both adults (Asgarizadeh *et al.*, 2023) and children (Clayton, 2020).

Despite the growing body of research documenting the prevalence and phenomenology of climate anxiety, the literature remains conceptually fragmented with respect to its antecedents. One particularly under-researched area concerns the systematic integration of predictors of climate anxiety across disciplinary boundaries (Asgarizadeh *et al.*, 2023). Existing studies tend to focus on isolated predictors—such as individual anxiety traits, demographic characteristics, or media exposure—without sufficiently addressing how these factors co-occur within broader psychological and social contexts.

To address this gap, the present study adopts an integrative review approach and proposes an integrative conceptual framework that organizes predictors of climate anxiety

into four primary domains: demographic, psychological, social, and experiential factors. Rather than treating these predictors as independent variables, the framework conceptualizes climate anxiety as a multifactorial phenomenon emerging from the dynamic interaction of individual dispositions, social environments, and lived experiences. The proposed framework is hypothetical and intended for empirical testing, providing a structured basis for future theory-driven and quantitative research.

Furthermore, understanding climate anxiety requires an interdisciplinary perspective, drawing not only from psychology but also from social ecology, media psychology, and environmental philosophy. Such an approach allows for the examination of macro-level societal structures, communication dynamics, and existential concerns that shape how climate threats are perceived and emotionally processed. This includes the influence of media practices such as doomscrolling, collective narratives of crisis and uncertainty, and broader experiences of environmental loss or what some authors describe as existential grief related to climate change. By explicitly situating predictors within this interdisciplinary framework, the review emphasizes relational and contextual processes, highlighting how demographic, cognitive, social, and experiential factors interact rather than operate in isolation.

The aim of this review study is therefore to analyze, synthesize, and conceptually integrate key predictors of climate anxiety in order to deepen understanding of its causes, underlying mechanisms, and consequences. By aligning the analysis with the proposed integrative framework, insights gained from this study may inform both theoretical development and practical strategies, including interventions to mitigate the adverse effects of climate anxiety, enhance psychological resilience to environmental stressors, and guide policies and programs aimed at prevention and adaptive coping.

## **2 METHOD OF LITERATURE REVIEW**

To ensure methodological transparency and rigor, this paper adopts an integrative review methodology, as outlined by Whitemore and Knafl (2005), Torraco (2016), and Snyder (2019), designed to identify, critically evaluate, and conceptually synthesize empirical studies examining predictors of climate anxiety. Relevant literature was retrieved from three major databases: Scopus, Web of Science, and PsycINFO, covering peer-reviewed journal articles published between 2005 and 2025. The search strategy

combined keywords and Boolean operators, including “*climate anxiety*” OR “*eco-anxiety*” AND (“*predictors*”, “*determinants*”, “*correlates*”, OR “*risk factors*”), and was complemented by manual screening of reference lists from key publications and recent review papers to enhance conceptual coverage.

Studies were included if they were empirical or quantitative investigations examining predictors or correlates of climate anxiety or closely related constructs, published in English between 2005 and 2025, and reported measurable outcomes of climate-related worry, distress, or anxiety. Studies focusing solely on environmental depression, general environmental concern, or eco-guilt without measuring anxiety, qualitative papers without identifiable predictors, and grey literature were excluded.

After removing duplicates, 104 abstracts were screened for relevance, resulting in the inclusion of roughly 51 empirical studies that directly addressed predictors of climate anxiety. Data were extracted on study design, sample characteristics, operationalization of climate anxiety, and identified predictors. Findings were then grouped into demographic, psychological, social, and experiential domains, which served as the organizational structure for the main part of the review and directly informed the development of the proposed Integrative Framework of Climate Anxiety Predictors. The synthesis combined elements of structured screening with thematic and conceptual integration, allowing both comprehensiveness and interdisciplinary coherence while maintaining a critical perspective.

### **3 PREDICTORS OF CLIMATE ANXIETY**

The following sections categorize key predictors of climate anxiety across demographic, psychological, social, and experiential domains, highlighting how insights from psychology, social ecology, media studies, and environmental philosophy converge to explain individual differences in climate-related distress.

#### **3.1 Demographic factors**

Within the category of demographic factors, age, gender, and education emerge as some of the most significant predictors of climate anxiety. These patterns can be understood not only through individual psychological mechanisms but also through

broader social and ecological structures that shape how people perceive and respond to climate threats.

### 3.1.1 Age

Research consistently indicates that younger individuals experience higher levels of climate anxiety compared to older age groups (Baker *et al.*, 2021; Burke *et al.*, 2018; Clayton & Karazsia, 2020). An international study involving 10,000 participants from ten countries found a high prevalence of climate anxiety among individuals aged 16–25, with 45 % reporting that climate-related concerns negatively affected their daily functioning (Hickman *et al.*, 2021). Similarly, Searle and Gow (2010) observed that younger cohorts expressed greater concern about climate change than those over 35.

Young people often perceive themselves as being more directly exposed to the consequences of climate change than older generations. They tend to see it as a personal and immediate threat to their future in multiple domains of life, whereas older individuals are more likely to believe that the most severe impacts will not affect them personally (Asgarizadeh *et al.*, 2023). According to Hickman *et al.* (2021), a combination of helplessness, distrust in adults' willingness to act, and perceived governmental inaction contributes to elevated levels of climate anxiety among youth. Ojala (2012) further suggests that younger individuals may be especially vulnerable because they have less control over their circumstances, engage in more future-oriented thinking and planning, and display stronger concern for societal and global issues than older adults.

### 3.1.2 Gender

Research consistently demonstrates that women report higher levels of climate anxiety than men. Verplanken *et al.* (2020) found that women scored significantly higher on measures of climate anxiety symptoms as well as on pro-environmental worldviews. Earlier studies likewise observed that women tend to express greater concern about climate change than men (Searle & Gow, 2010; Sundblad *et al.*, 2007).

According to Searle and Gow (2010), this pattern may stem from a generally higher predisposition among women to experience anxiety and fear, particularly when confronted with unpredictable or uncontrollable events, as well as a stronger orientation

toward future-related concerns. However, these differences are not only psychological. Women may also be more emotionally and physically vulnerable to the consequences of climate change, especially in the context of natural disasters. This heightened vulnerability is often reinforced by structural inequalities and the limited access to power and resources associated with traditional gender roles in many cultural and national settings (Sundblad *et al.*, 2007).

Taken together, these findings suggest that gender differences in climate anxiety are embedded within broader social and cultural frameworks, where social roles, caregiving responsibilities, and unequal exposure to risk interact with psychological dispositions to shape emotional responses to the climate crisis.

### 3.1.3 Education

Research indicates that higher levels of educational attainment may be associated with more intense experiences of climate anxiety. Educated individuals generally have greater access to information about climate change, which can amplify their emotional engagement and increase their vulnerability to climate-related distress. This relationship reflects a paradox: while knowledge and awareness are essential for fostering environmental responsibility, they may simultaneously heighten perceptions of threat and personal concern.

Although individuals from disadvantaged communities—characterized by lower income and educational levels—are often more directly exposed to physical climate risks such as resource scarcity or natural disasters, studies suggest that climate anxiety is shaped more strongly by cognitive awareness and perceived responsibility than by direct exposure (Kankawale & Niedzwiedz, 2023). Chou *et al.* (2023) similarly note that those who are more informed and engaged with climate change issues often belong to more affluent and highly educated social groups.

Moreover, intergenerational effects appear to play a role: Leonhardt *et al.* (2022) found that higher parental education levels were associated with greater climate anxiety among their children, likely mediated by increased environmental awareness and value transmission within the family. A cross-national study conducted in China, India, Japan, and the United States further confirmed a positive correlation between higher education and climate anxiety (Tam *et al.*, 2023).

Taken together, these findings suggest that education functions as a double-edged factor—enhancing understanding and engagement with climate issues, *yet also* intensifying emotional responses and perceptions of risk. From a broader socio-ecological perspective, education thus shapes both the cognitive and emotional dimensions of how individuals interpret and internalize the global climate crisis.

### 3.2 Psychological factors

Among the most significant predictors of climate anxiety within the psychological domain are generalized anxiety disorder, risk perception, and environmental identity. These predictors capture the internal mechanisms through which individuals interpret and emotionally respond to climate-related threats. Understanding their role requires an interdisciplinary lens, integrating insights from psychology, cognitive science, and existential or environmental philosophy.

Whereas demographic factors delineate who is more likely to experience heightened climate anxiety, psychological factors explain why and how these emotional responses emerge and persist. They reveal the pathways through which broader social and ecological influences are internalized at the individual level—transforming external realities into subjective experiences of fear, helplessness, or moral concern.

#### 3.2.1 *Generalized anxiety disorder*

Excessive, uncontrollable, and often unfounded concerns about specific issues—such as health, property, or the fear of losing loved ones—are characteristic of generalized anxiety disorder (GAD). These anxieties typically interfere with daily functioning and may manifest in sleep disturbances, fatigue, irritability, sweating, or tremors. For a formal diagnosis of GAD, symptoms must persist consistently for at least six months (Mishra & Varma, 2023).

A growing body of research identifies symptoms of generalized anxiety disorder as one of the strongest psychological predictors of climate anxiety (Asgarizadeh *et al.*, 2023; Schwartz *et al.*, 2022). Individuals with pre-existing anxiety or related mental health disorders tend to experience more intense and persistent forms of climate-related

distress, suggesting that climate anxiety may amplify—or be amplified by—underlying psychological vulnerabilities (Whitmarsh *et al.*, 2022).

From an integrative perspective, GAD may influence how individuals interpret environmental uncertainty and perceive climate threats, lowering their threshold for anxiety activation. In this way, climate anxiety can be seen as an extension or contextual manifestation of broader anxiety processes, triggered by the chronic and uncontrollable nature of the climate crisis itself.

### 3.2.2 Risk perception

Emotional responses to climate change are often shaped less by direct experiences with extreme weather events and more by the social and cognitive contexts through which individuals interpret environmental information. As Norgaard (2006) argues, people's reactions to climate threats are mediated by cultural narratives and collective coping mechanisms rather than by firsthand exposure alone.

A heightened perception of climate risk occurs when individuals feel they lack sufficient resources, options, or control to manage the anticipated consequences of climate change—particularly natural disasters and environmental degradation (Ojala, 2012). This perceived lack of control is frequently accompanied by intense emotions such as fear, worry, and helplessness, which may contribute to the development or exacerbation of anxiety states (Leiserowitz, 2006).

Contextual factors such as conflicting climate information, scientific uncertainty, and perceived governmental inaction have been shown to further intensify risk perception (Farrokhi *et al.*, 2020). Empirical studies consistently demonstrate that stronger concerns about the negative consequences of global warming are associated with a higher perceived risk (Sundblad *et al.*, 2007; Thaker *et al.*, 2020). In turn, a higher perception of risk has been identified as a direct predictor of elevated levels of climate anxiety (Reese *et al.*, 2023).

From a psychological standpoint, risk perception represents a cognitive bridge between environmental awareness and emotional response. Individuals who interpret climate change as an imminent, uncontrollable threat are more likely to experience persistent anxiety—particularly when this perception is reinforced by social discourse emphasizing crisis and uncertainty.

### 3.2.3 Environmental identity

Climate anxiety is not evenly distributed across the population but tends to be more prevalent among individuals who strongly identify with environmental values and concerns. As Searle and Gow (2010) note, this suggests that anxiety about the climate crisis is partly rooted in one's environmental identity — the degree to which individuals see themselves as emotionally and morally connected to the natural world.

Environmental identity encompasses both cognitive and affective components. It manifests in environmental beliefs, ecological worldviews, and pro-environmental behaviors such as support for climate-friendly policies or sustainable practices within the household (Gkargkavouzi *et al.*, 2018). Individuals who view themselves as part of the natural world and who hold strong environmental values often experience greater emotional sensitivity to environmental degradation, which can increase vulnerability to climate-related distress (Dean *et al.*, 2018; Galway *et al.*, 2021).

Empirical evidence further supports this association. In experimental studies, individuals with a strong environmental identity reported heightened climate anxiety after exposure to natural settings — as these experiences reminded them of the fragility of what they value and the potential for irreversible loss. In contrast, for participants with weaker environmental identification, contact with nature had a calming effect, reducing general anxiety levels (Whitmarsh *et al.*, 2022).

Taken together, these findings suggest that environmental identity functions as a double-edged psychological mechanism: it fosters ecological awareness and moral engagement but also heightens vulnerability to distress when confronted with environmental threats. In this sense, environmental identity represents both a motivational driver of climate concern and a psychological risk factor for the development of climate anxiety.

## 3.3 Social factors

Within the category of social factors, the most significant predictors of climate anxiety include knowledge about climate change and media exposure. Research from media psychology and social ecology highlights that emotional responses to climate change are not shaped in isolation but are deeply influenced by social contexts,

communication practices, and collective narratives. The ways in which individuals encounter, interpret, and share information about the climate crisis through social networks, digital media, and interpersonal communication substantially affect both the intensity and persistence of climate-related distress.

### 3.3.1 Knowledge about climate change

The influx of knowledge about climate change and its consequences can contribute to the development of climate anxiety (Aitken *et al.*, 2011; Ramírez-Lopez *et al.*, 2022; Sundblad *et al.*, 2009). In research by Asgarizadeh *et al.* (2023), knowledge about climate change was identified as the third most significant predictor of climate anxiety. Whitmarsh *et al.* (2022) found that levels of climate anxiety were particularly high among individuals who actively sought information about climate change. In their multivariate analysis, knowledge about climate change emerged as the strongest predictor of climate anxiety, even after controlling for other variables.

Milfont (2012) also observed that higher levels of knowledge about global warming were associated with increased climate anxiety. This occurs because awareness of the real threat posed by climate change triggers stress and emotional distress. In Swiss research, knowledge of the causes and consequences of climate change predicted climate anxiety, while knowledge about pro-climate behaviors did not have the same effect (Tobler *et al.*, 2012). People who are more informed about the causes and consequences of climate change are better able to anticipate the specific impacts on the environment they live in and the effects on their own lives. This heightened awareness can increase their climate anxiety (Whitmarsh *et al.*, 2022).

The increase in climate anxiety may also be influenced by a sense of personal responsibility: when individuals understand that human activities are driving climate change, they may feel guilt or moral obligation regarding the crisis. Greater knowledge of the potential consequences of climate change is therefore linked to the realization of the severe and possibly irreversible damage it will cause to the environment and human health (Shi *et al.*, 2016). These findings demonstrate that while knowledge about climate change is essential for informed engagement, it simultaneously serves as a psychological stressor, intensifying climate-related anxiety when the perceived threat seems uncontrollable or morally charged.

### 3.3.2 Media exposure

Many individuals acquire information about climate change through both traditional and social media, and the way this information is presented can strongly influence their interpretations and perceptions of the climate threat, potentially increasing their climate anxiety (Weber & Stern, 2011). The role of media has been consistently recognized as a risk factor that heightens stress and anxiety related to climate change (Weems *et al.*, 2012). Even indirect exposure through passive consumption of climate-related information, without direct personal experience of environmental events, can contribute to the development of climate anxiety (Asgarizadeh *et al.*, 2023).

Empirical studies have shown a positive relationship between higher media exposure and greater levels of climate anxiety (Hong *et al.*, 2019). Exposure to reports from the Intergovernmental Panel on Climate Change (IPCC) has been associated with heightened concern about climate change (Ogunbode *et al.*, 2019). Carmichael *et al.* (2017) similarly found that higher media exposure predicts the development of climate anxiety. Crandon *et al.* (2022) suggest that this effect may be particularly pronounced among youth, who are often more engaged with digital media and more emotionally affected by climate-related content.

Further research confirms that individuals who actively attend to media reports on climate change exhibit elevated levels of climate anxiety (Asgarizadeh *et al.*, 2023). These findings indicate that media exposure functions not only as a source of information but also as a psychological amplifier: it can increase awareness and knowledge about climate change while simultaneously intensifying feelings of worry, fear, and helplessness. Media, therefore, interacts with other predictors, potentially reinforcing the emotional and cognitive pathways that contribute to climate anxiety.

## 3.4 Experience with extreme natural disasters

Integration of environmental psychology and social ecology highlights that the impact of natural disasters is shaped not only by the events themselves but also by the social and ecological context in which individuals live, influencing how anxiety develops and persists. Extreme natural disasters—such as droughts, floods, hurricanes, heatwaves,

and tsunamis—are projected to become increasingly frequent and severe due to climate change (Berry *et al.*, 2009).

Empirical evidence indicates that previous experiences with such extreme events are significant predictors of climate anxiety. Searle and Gow (2010) found that respondents often associate climate change with unexpected environmental events, including natural disasters and extreme weather fluctuations. Similarly, Clayton and Karazsia (2020) demonstrated that individuals who had experienced extreme natural events reported higher levels of climate anxiety. Surveys conducted across eight African and European countries corroborate these findings (Heeren *et al.*, 2022), as do other studies (Bergquist *et al.*, 2019; de Bruin & Dugan, 2022; Zanocco *et al.*, 2018).

Specific events, such as flooding, have been shown to trigger heightened climate anxiety, as evidenced by Hamilton-Webb *et al.* (2017). In a broader analysis, Asgarizadeh *et al.* (2023) identified experiences with extreme natural disasters as the second strongest predictor of climate anxiety. Higginbotham *et al.* (2013) argue that such negative experiences prompt individuals to perceive climate-related threats as highly severe, eliciting emotional responses that manifest as climate anxiety. These findings underscore the importance of considering both direct environmental exposures and contextual factors when examining the development and persistence of climate-related distress.

#### 4 DISCUSSION

This review identified key demographic, psychological, social, and experiential predictors of climate anxiety. Younger individuals (Hickman *et al.*, 2021; Ojala, 2012), women (Verplanken *et al.*, 2020; Searle & Gow, 2010), and those with higher levels of education (Tam *et al.*, 2023; Milfont, 2012) are more likely to experience elevated climate anxiety. Psychologically, individuals with generalized anxiety disorder (Whitmarsh *et al.*, 2022; Schwartz *et al.*, 2022), a heightened perception of climate-related risk (Reese *et al.*, 2023; Sundblad *et al.*, 2007; Thaker *et al.*, 2020), and a strong environmental identity (Dean *et al.*, 2018; Galway *et al.*, 2021) appear particularly vulnerable. Social factors, including knowledge about climate change (Chou *et al.*, 2023; Leonhardt *et al.*, 2022; Kankawale & Niedzwiedz, 2023) and media exposure (Asgarizadeh *et al.*, 2023; Hong *et al.*, 2019; Ogunbode *et al.*, 2019), together with direct experiences of extreme weather events (Bergquist *et al.*, 2019; de Bruin & Dugan, 2022; Zanocco *et al.*, 2018), further

compound this distress. Collectively, these findings underscore that climate anxiety is not merely an emotional overreaction but a complex psychological response shaped by both internal dispositions and external realities.

These findings are organized within a proposed Integrative Framework of Climate Anxiety Predictors, which classifies predictors into demographic, psychological, social, and experiential domains. The framework remains hypothetical and intended for empirical testing, serving as a conceptual foundation for future research rather than a definitive explanatory model. By synthesizing insights from psychology, social ecology, media studies, and environmental philosophy, the framework illustrates how individual differences in climate-related distress emerge from the interplay of personal, social, and environmental factors.

The insights carry meaningful implications for theory and practice. Theoretically, climate anxiety should be regarded as a legitimate emotional and cognitive response to objectively threatening global conditions, rather than solely through the lens of psychopathology. Practically, identifying modifiable predictors such as media exposure and risk perception highlights opportunities for interventions. Mental health practitioners should be equipped to recognize climate-related distress, particularly among vulnerable populations. Educational programs should convey climate information in ways that foster agency rather than helplessness, and policy-makers and community organizations could implement strategies promoting collective engagement, social support, and resilience-building, transforming anxiety into constructive action.

Despite the comprehensive scope, this review has several limitations. Most studies rely on cross-sectional designs, limiting causal inference. There is an overrepresentation of WEIRD populations, potentially restricting generalizability. The conceptualization and measurement of climate anxiety are still evolving, and a key question remains whether climate anxiety represents a distinct psychological entity or a manifestation of generalized anxiety. Finally, research has primarily focused on predictors, leaving protective factors such as resilience, coping strategies, self-efficacy, and social engagement underexplored.

Future research should focus on underrepresented populations, especially in low-income and climate-vulnerable regions, and employ longitudinal and experimental designs to track climate anxiety over time and assess intervention efficacy. By systematically addressing these gaps, research can provide both theoretical insights and practical guidance for mitigating climate-related distress.

Although this review synthesizes the major predictors of climate anxiety, it also highlights considerable conceptual fragmentation in existing literature. By presenting predictors within a unified, integrative framework, this review offers a critical and analytical contribution, positioning itself as a foundation for both future research and applied practice, rather than a purely descriptive summary.

## 5 CONCLUSION

Climate anxiety is increasingly recognized as a distinct psychological response to the accelerating climate crisis. This review synthesized a wide range of demographic, psychological, social, and experiential predictors that influence its development and intensity, highlighting the phenomenon's complex and multifactorial nature. While climate anxiety has often been examined through the lenses of psychopathology or environmental activism, the present synthesis emphasizes the value of integrative approaches that consider how personal, social, and environmental factors interact to shape individual experiences of distress.

Understanding the psychological consequences of climate change is critical for professionals across disciplines, including mental health practitioners, educators, policymakers, and environmental communicators. The findings underscore the importance of creating supportive structures—educational, institutional, and social—that acknowledge climate-related distress while fostering individual and collective resilience. Rather than viewing climate anxiety solely as a symptom to be treated, it may be more productive to see it as a meaningful signal—a call to reflect, adapt, and act.

Building on the proposed integrative framework of climate anxiety predictors, future research and practice should aim to translate knowledge of risk and protective factors into interventions that not only alleviate psychological distress but also promote constructive engagement and adaptive responses to the climate crisis. Continued interdisciplinary research and collaboration will be essential to develop responses that are both psychologically supportive and environmentally transformative, ensuring that climate anxiety serves as a guide toward meaningful action rather than an impediment to well-being.

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### Authors' Contribution

All authors contributed equally to the development of this article.

### Data availability

All datasets relevant to this study's findings are fully available within the article.

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