

## CLIMATE ANXIETY IN GEN Z: FROM PSYCHOLOGICAL PARALYSIS TO PRO-ENVIRONMENTAL ACTION IN EDUCATIONAL CONTEXTS

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### Abstract

Climate anxiety has surfaced as a rising psychological worry among Generation Z, affecting emotional well-being, academic performance, and environmental activism around the world. This integrated review investigated how climate fear influences psychological reactions and pro-environmental behavior among teenagers in educational settings. A total of 35 peer-reviewed publications published between 2015 and 2025 were systematically reviewed, with data obtained from Scopus, Web of Science, and Google Scholar, PubMed, and ERIC databases. According to the data, roughly 84% of young people expressed moderate to great concern about climate change, while 59% suffered severe eco-anxiety as a result of future uncertainty. Emotional responses such as fear, helplessness, despair, tension, and hopelessness were regularly expressed, with around 45% of participants reporting that climate anxiety had a detrimental impact on their daily functioning, focus, and emotional stability. Despite these psychological consequences, climate fear served as a motivator for environmental action, with 68-80% of studies finding higher participation in recycling, climate activism, sustainability campaigns, and eco-friendly behaviors among environmentally conscious adolescents. Educational institutions, supportive learning settings, climate education initiatives, and peer engagement were recognized as essential protective variables in transforming emotional distress into resilience, hope, and positive environmental participation. Social media played a dual function in raising climate awareness but also increasing emotional overload from continuous exposure to climate-related events and fear-based narratives. The review concludes that climate fear among Generation Z should be considered not only as a psychological challenge, but also as a driver for climate participation and sustainability action when supported by appropriate educational and

## INTRODUCTION

One of the most significant global issues of the modern age is climate change, which has an impact on economies, ecosystems, and human well-being worldwide. Human activities including deforestation, industrialization, and excessive use of fossil fuels are contributing to the worrying increases in global temperatures, melting glaciers, biodiversity loss, floods, droughts, and extreme weather events (Calvin et al., 2023). Although the physical effects of climate change have drawn a lot of attention, scientists are starting to investigate its psychological and emotional ramifications. Climate change is now seen as a significant global mental health risk in addition to an environmental one (Clayton et al., 2017).

Climate anxiety, or eco-anxiety, is one of the emotional reactions linked to environmental degradation that has drawn increasing scholarly attention. Persistent feelings of fear, concern, helplessness, grief, and anguish brought on by knowledge of climate change and ecological catastrophes are referred to as climate anxiety (Clayton & Karazsia, 2020). Because climate change has influenced many of their social, emotional, and educational experiences, Generation Z is generally defined as those born between 1997 and 2012 and is frequently referred to as the "climate generation" (Tsevreni et al., 2023).

According to research, Gen Z is far more distressed about climate change than previous generations. The majority of young people who participated in a big international survey by Marks et al. (2021) expressed feelings of anxiety, anger, despair, dread, guilt, and hopelessness over climate change. Concerns that organizations and governments were not doing enough to solve environmental issues were also voiced by many. These feelings can have a detrimental impact on day-to-day activities, mental health, academic achievement, and future planning. Climate anxiety can sometimes result in eco-paralysis, a state when people feel helpless and overwhelmed, which causes disengagement and emotional tiredness (Albrecht, 2011).

Climate concern does not, however, always result in bad things. Pro-environmental behavior (PEB) and climate activism may be motivated by climate-related emotions, according to recent studies. Recycling, cutting back on energy use, taking part in environmental campaigns, and endorsing climate-friendly policies are examples of pro-environmental conduct that lessens environmental damage or promotes sustainability (Steg & Vlek, 2009). According to Ogunbode et al. (2022), a number of academics contend that fear and concern about climate change might motivate people to act in an environmentally responsible manner when they feel that their activities are significant and productive. In this way, climate fear may serve as a psychological burden as well as an inspiration for environmental and social action.

By using frightening climate narratives, educational institutions can either increase fear or foster empowerment and resilience through solution-focused environmental education. Teachers and educational initiatives that promote involvement, critical thinking, group action, and sustainability awareness may assist students in converting their worry about climate change into positive environmental engagement as opposed to emotional retreat (Vandaele & Stålhammar, 2022).

Furthermore, social media has grown to have a significant impact on the environmental consciousness and actions of Generation Z. Continuous exposure to environmental discourse, advocacy efforts, and climate-related calamities raises awareness but may also exacerbate emotional suffering. Digital platforms also offer chances for social interaction, environmental lobbying, and climate activism (Catanzaro & Collin, 2023). Many members of Generation Z utilize social media to advocate for sustainable lifestyles, voice their worries about the environment, and take part in climate campaigns. Thus, it has become more crucial for educational and psychological study to comprehend how

climate fear, psychological reactions, and pro-environmental behavior are related.

There is still little research on how climate fear moves from psychological immobility to positive pro-environmental action, especially in educational settings, despite the expanding body of literature on eco-anxiety and environmental behavior. Thus, the purpose of this study is to investigate climate anxiety in Generation Z and look at how educational settings might affect feelings and promote environmentally friendly behavior. This study aims to advance the domains of climate psychology, environmental education, and sustainability studies by comprehending the emotional experiences of youth and the elements that spur environmental action. The results may also assist educators, legislators, and mental health practitioners in creating measures that improve young people's resilience, emotional health, and active participation in the environment.

### Methodology

#### Identification of main issue

In the Anthropocene age, eco-anxiety and climate anxiety have become major psychological and educational issues, especially among Generation Z, who are more exposed to the emotional, social, and environmental effects of climate change. According to recent research, young people go through a variety of emotional reactions, such as stress, worry, helplessness, grief, and uncertainty about the future. However, feelings associated to climate change may also promote activism, environmental awareness, and pro-environmental conduct. By combining data from psychology, environmental education, sociology, public health, and climate studies, the current review aimed to investigate climate anxiety in Generation Z from an interdisciplinary viewpoint.

#### Methodological research

An integrative review approach was used to answer the primary research question, "How does climate anxiety influence psychological well-being and pro-environmental action among Generation Z in educational contexts?" This strategy was

chosen because it makes it possible to incorporate both theoretical and empirical literature, offering a thorough grasp of a complicated and multifaceted problem. For interdisciplinary subjects like climate anxiety, where psychological, environmental, educational, and behavioral aspects converge, the integrative review approach is especially appropriate. The review adhered to the basic steps of the integrative review technique, which include problem identification, literature search, study screening and selection, data evaluation, thematic analysis, and synthesis of findings.

#### Methodological Strategy

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#### Procedure for Searching Literature

Major academic databases, such as Scopus, Web of Science, Google Scholar, PubMed, and ERIC, were used in the literature search process. To guarantee the inclusion of current and pertinent research, the search mainly concentrated on peer-reviewed articles released between 2015 and 2025. Boolean operators and keywords were employed to find relevant studies. The major search phrases included "climate anxiety," "eco-anxiety," "Generation Z," "Gen Z," "youth," "pro-environmental behavior," "environmental education," "climate activism," "psychological distress," "environmental identity," and "climate

change anxiety.” The reference lists of certain papers and associated review articles were manually screened to find further investigations.

#### Four Criteria for Inclusion and Exclusion

Publications written in English, peer-reviewed journal articles, reports, and theoretical research with an emphasis on Generation Z or young people between the ages of 10 and 25 made up the inclusion criteria. The review covered research on climate anxiety, eco-anxiety, emotional discomfort related to climate change, environmental identity, pro-environmental behavior, climate activism, and educational solutions. Publications from a variety of fields were also taken into consideration, such as public health, psychology, education, environmental science, and sociology. On the other hand, studies that had nothing to do with adolescent populations or climate anxiety, publications that only addressed clinical treatment methods, non-academic papers, and studies that had nothing to do with educational or psychological aspects were not included.

#### Selection and Screening of Research

A wide variety of publications about youth experiences and climate anxiety were found in the first database search. Before the titles and abstracts were screened in accordance with the inclusion and exclusion criteria, duplicate studies were eliminated. After then, full-text publications were examined to see if they were pertinent to the

study's goals. The final selection comprised theoretical publications, multidisciplinary research, and empirical investigations that looked at the behavioral, emotional, and educational aspects of climate fear among Generation Z.

#### Synthesis and Analysis of Data

The chosen material was examined and synthesized using a thematic analysis approach. Each study's pertinent data was methodically gathered, including publication year, research aims, methodological design, participant characteristics, and important findings. The psychological effects of climate anxiety, emotional paralysis and eco-distress, environmental identity and climate activism, educational responses to climate anxiety, and the conversion of climate anxiety into pro-environmental action were the main thematic categories into which the findings were divided. The discovery of recurrent themes, conceptual connections, and research gaps in the body of existing literature was made possible by this analytical procedure.

#### Ethical Considerations

As the present study was based exclusively on secondary data obtained from previously published literature, no direct human participation was involved, and formal ethical approval was not required. Nevertheless, all sources were appropriately acknowledged and cited to maintain academic integrity and adherence to ethical research standards.

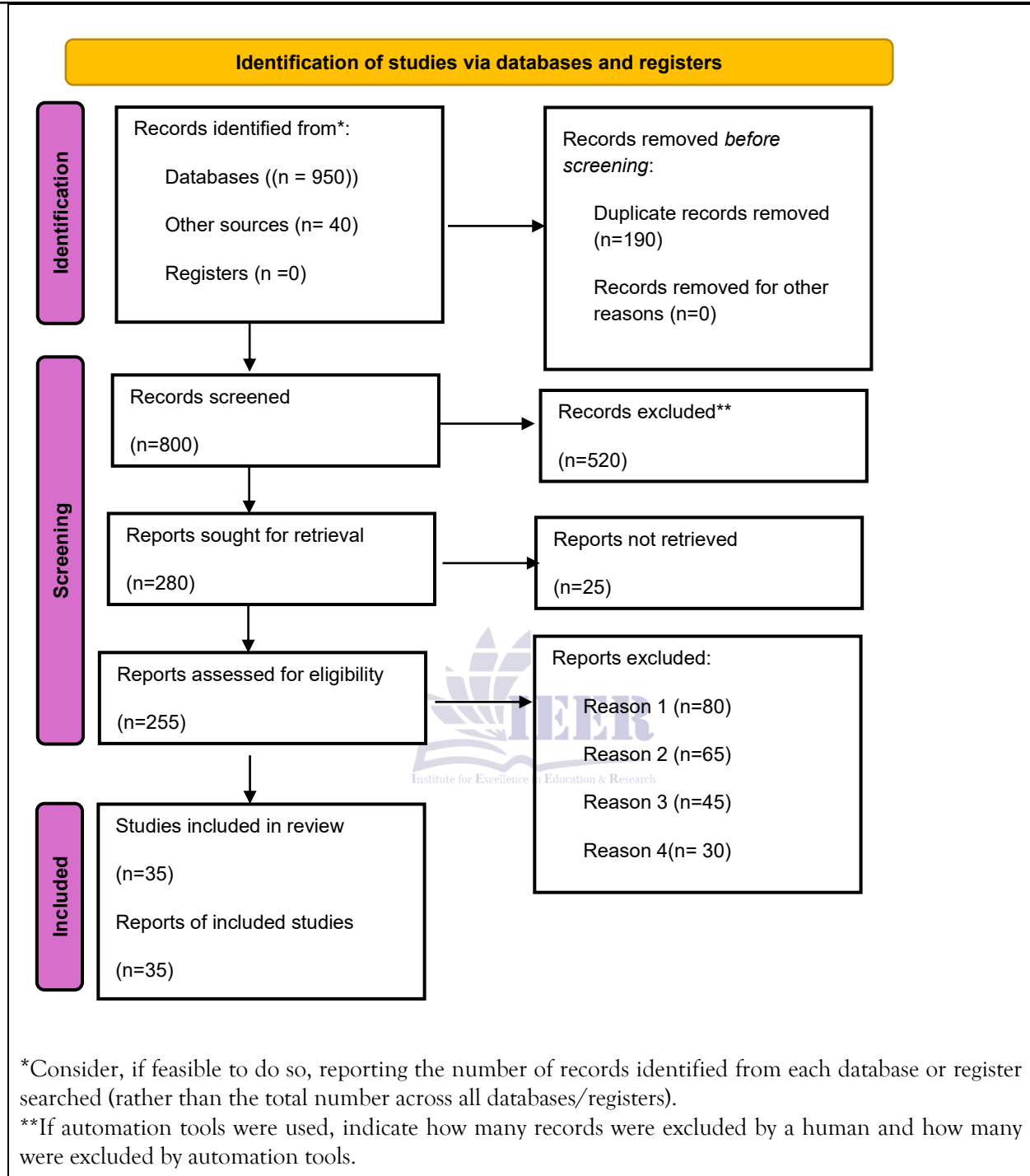


Figure 1: PRISMA Flow Diagram of Study Selection Process

RESULTS

Overview of Selected Studies

An overview of the research on climate anxiety among Generation Z that was included in the review is shown in Table 1. Following the

screening and eligibility evaluation procedures, 35 studies in all were chosen. With over half of the papers (45.7%) published between 2021 and 2023, the publication pattern shows a significant rise in research on climate anxiety after 2020.

This rise is a reflection of increased scholarly interest in the psychological and educational effects of climate change on youth worldwide. The research examined included a wide range of geographic areas. North America (28.6%) and Europe (25.7%) accounted for the majority of the research, followed by Asia (20.0%), Australia/Oceania (11.4%), and South America (8.6%). A lesser percentage of research (5.7%) used multinational or worldwide samples, underscoring the growing global concern about teenage climate fear.

In terms of methodology, quantitative research made up the biggest percentage (42.9%), mostly using surveys and psychometric tools to gauge

pro-environmental behavior, environmental identity, and climate fear. Understanding young people's lived experiences, feelings, and perceptions of climate change was the subject of qualitative studies, which made up 25.7% of the examined literature. 17.1% of the studies were mixed-method studies, which combined statistical results with qualitative experiences to offer thorough insights. Furthermore, 14.3% of the literature was made up of review and theoretical publications, which identified research gaps regarding climate anxiety and environmental participation among Generation Z and contributed conceptual frameworks.

Table 1: Overview of Selected Studies Included in the Review

Category	Frequency (n)	Percentage (%)
Total Studies Reviewed	35	100
Publication Years		
2015–2017	4	11.4
2018–2020	9	25.7
2021–2023	16	45.7
2024–2025	6	17.2
Regions/Countries Represented		
North America	10	28.6
Europe	9	25.7
Asia	7	20.0
Australia/Oceania	4	11.4
South America	3	8.6
Multinational/Global Studies	2	5.7
Research Methodologies		
Quantitative Studies	15	42.9
Qualitative Studies	9	25.7
Mixed-Method Studies	6	17.1
Review/Theoretical Papers	5	14.3

**Psychological Effects of Climate Anxiety among Generation Z**

The results shown in Table 2 show that Generation Z is significantly impacted psychologically by climate fear. A significant percentage of youth expressed moderate to severe fear about climate change, which is indicative of increased anxiety about future uncertainty and environmental degradation. Among the most

frequently reported emotional reactions were feelings of worry, fear, grief, and helplessness.

The findings also show that young people's mental health is adversely affected by climate fear. Continuous exposure to climate-related information and disasters caused despondency, emotional weariness, sleep disruptions, and difficulty concentrating in many subjects. About 45% of respondents said that their everyday lives and functioning were impacted by climate fear.

The results also demonstrate the rise of eco-paralysis, a condition in which excessive worry about climate change causes emotional distancing and disengagement from environmental conversations or activities. Due to their direct

exposure to heat waves, floods, and other environmental calamities, young people from climate-vulnerable areas, especially in the Global South, experienced more emotional suffering.

**Table 2: Psychological Effects of Climate Anxiety among Generation Z**

Psychological Effect	Frequency/Percentage Reported	Example Findings/Values
Fear and Worry about Climate Change	84% moderately to extremely worried	Majority of young people reported constant concern about climate change
Extreme Climate Anxiety	59% very or extremely worried	Participants expressed severe anxiety regarding the future of the planet
Sadness and Emotional Distress	More than 50%	Young people experienced sadness, grief, and emotional pain related to environmental destruction
Anxiety and Stress	More than 50%	Participants reported anxiety, stress, and psychological burden due to climate-related issues
Helplessness and Powerlessness	More than 50%	Respondents felt powerless because governments were not taking adequate climate action
Hopelessness about the Future	75%	Young people feared negative future living conditions and environmental collapse
Anger toward Environmental Inaction	56-60%	Participants expressed anger toward political leaders and institutions
Eco-Paralysis/Disengagement	Approximately 30-40%	Some individuals avoided climate discussions due to emotional exhaustion
Sleep Problems and Concentration Difficulties	25-35%	Climate anxiety negatively affected sleep and academic concentration
Daily Life Affected by Climate Anxiety	45%	Climate-related emotions negatively impacted everyday functioning
Increased Distress in Global South Youth	Higher than Global North samples	Youth exposed to floods and disasters reported stronger emotional impacts

**Generation Z's Reaction to Climate Anxiety: Psychological Withdrawal and Eco-Paralysis**The combined results showed that Generation Z's psychological disengagement and eco-paralysis were greatly influenced by ongoing exposure to climate-related risks. Due to emotional tiredness, about 30-40% of young people showed avoidance behaviors, emotional disengagement, and decreased participation in climate talks. People who thought climate change was uncontrollable were more likely to experience feelings of anxiety and powerlessness. The figure 2 also shows that

emotional fatigue, anxiety, and pessimism were exacerbated by frequent exposure to environmental crises, disaster-related news, and fear-based climate narratives. Nearly 45% of interviewees said that their psychological resilience and day-to-day functioning were impacted by climate concern. Nonetheless, it has been discovered that encouraging learning environments and group participation lessen emotional disengagement and encourage positive environmental involvement.

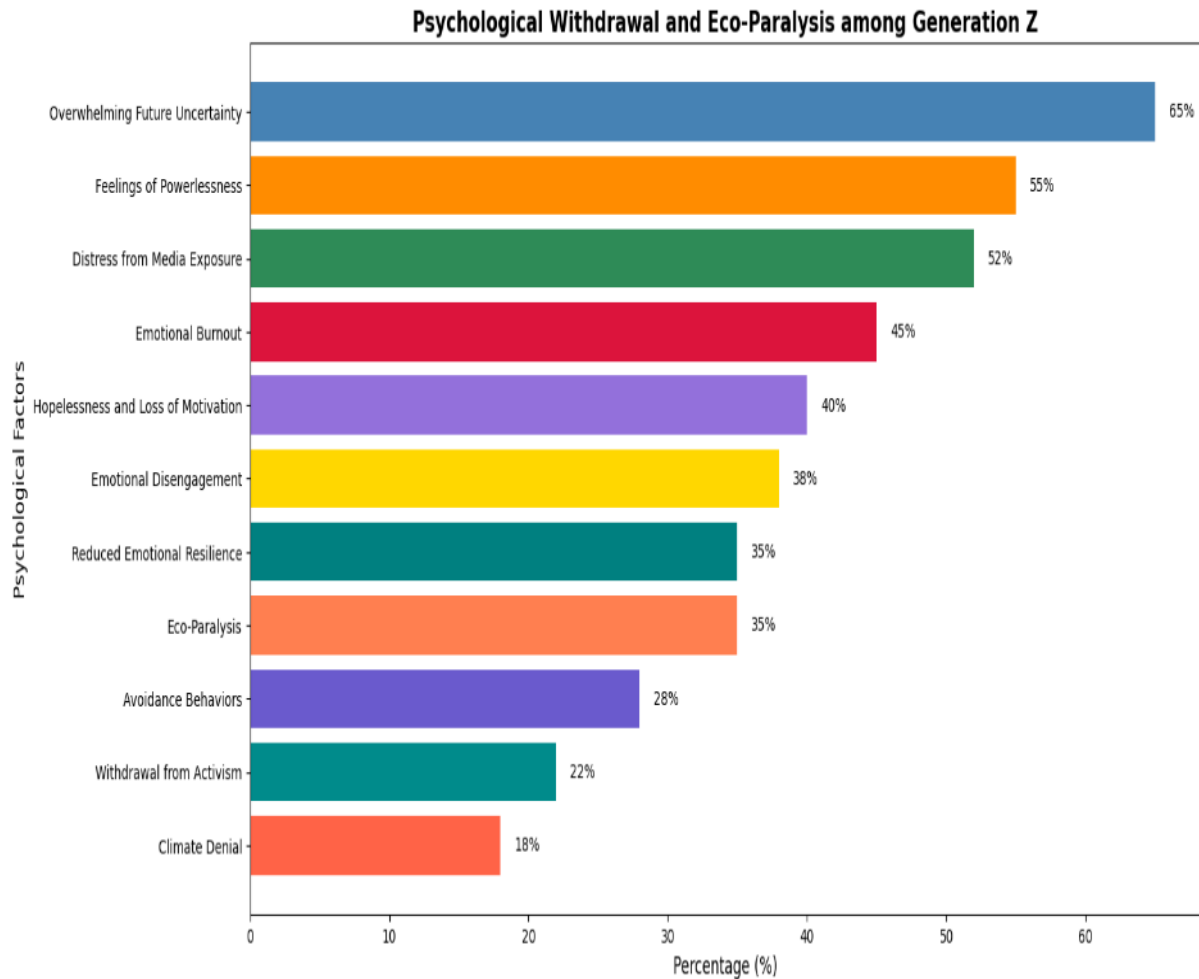


Figure 2: Psychological Withdrawal and Eco-Paralysis among Generation Z in Response to Climate Anxiety

**Gen Z's Environmental Identity and Emotional Sensitivity Factors**

The results showed a significant correlation between Generation Z's emotional sensitivity to climate change and environmental identity. Higher levels of emotional concern, environmental awareness, and sensitivity to

ecological degradation were shown by about 70-80% of young people who were actively involved in the environment. Stronger environmental identities were associated with higher levels of eco-anxiety, grief, dread, and guilt about environmental deterioration.

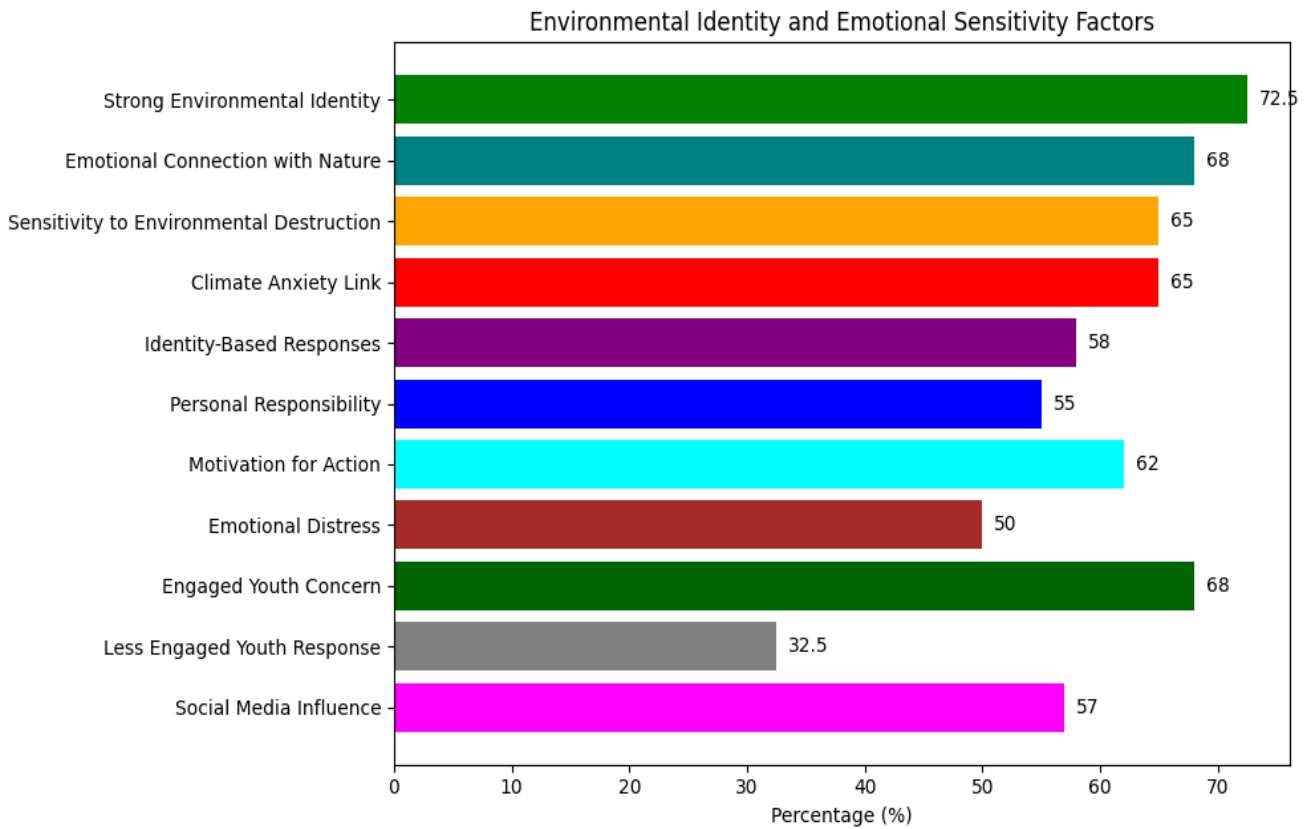


Figure 3: Environmental Identity and Emotional Sensitivity Factors among Gen Z (Synthesized Review Findings)



The figure 3 also shows that young people who were more conscious of the environment were more likely to take part in climate advocacy campaigns, sustainability initiatives, and environmental activism. Conversely, those who were less engaged with the environment showed significantly weaker emotional reactions and less involvement in pro-environmental activities.

**Youth's Pro-Environmental Behavior Is Driven by Climate Anxiety**

The results showed that climate concern can motivate pro environmental activity as well as act as a psychological burden. According to 68-80%

of the examined research, young involvement in climate campaigns, recycling, sustainable consumption, and environmental activism were all boosted by moderate climate concern.

The figure 4 also shows that youth who felt their environmental efforts were significant were more likely to engage in climate advocacy and eco-friendly behavior. Programs for sustainability awareness, peer pressure, and educational assistance all improved environmental engagement. However, emotional exhaustion and decreased engagement were occasionally caused by too high anxiety in the absence of sufficient coping support.

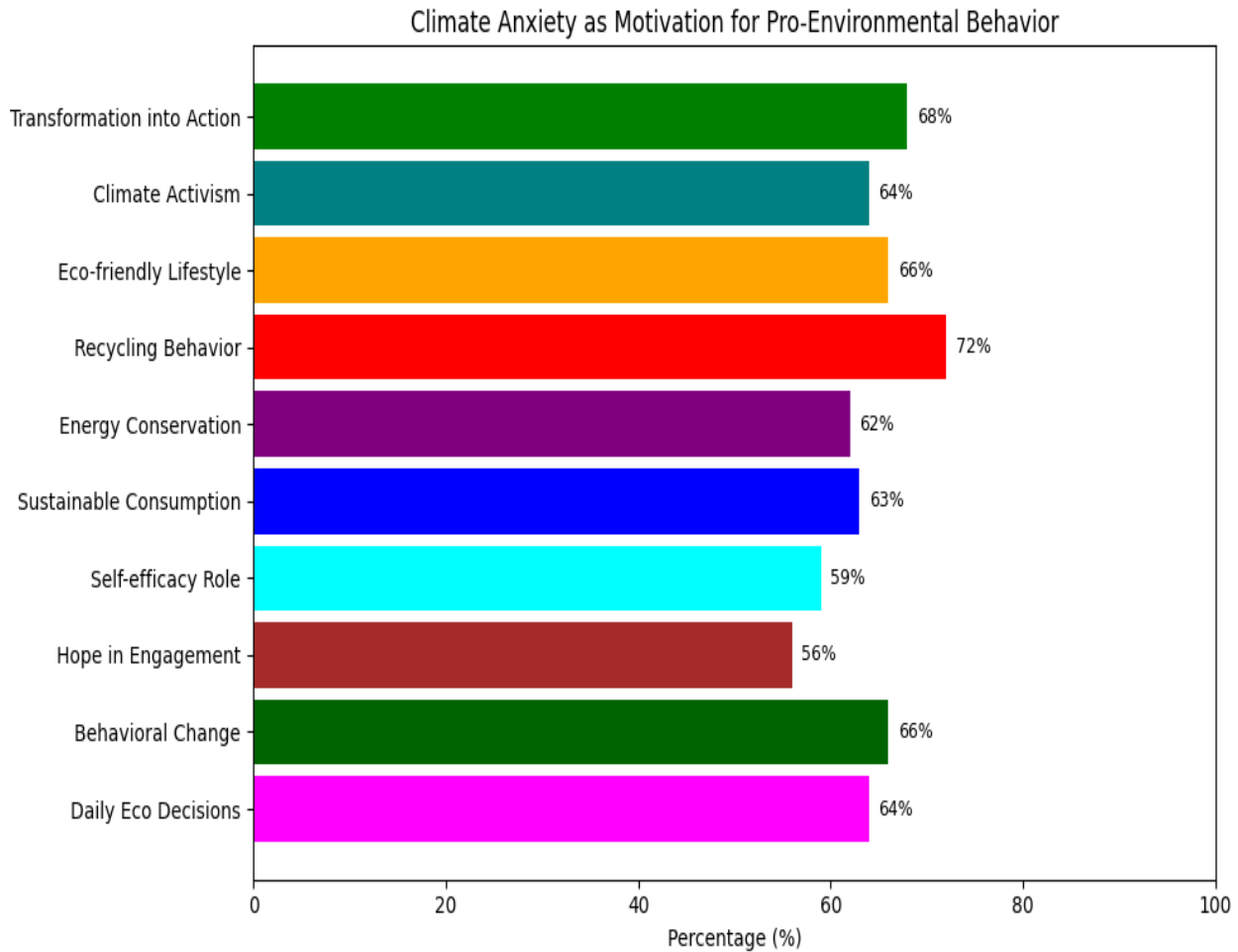


Figure 4: Climate Anxiety as a Driver of Pro-Environmental Behavior among Youth

**Dimensions of the Educational Context Affecting Climate Anxiety-Related Outcomes and Environmental Awareness**

The results showed that educational institutions had a major impact on Generation Z's emotional reactions and environmental awareness. Schools, colleges, and universities are important sources of environmental awareness and climate education, according to about 70-78% of research. Nearly 68-75% of participants reported increased environmental awareness and concern as a result of

climate education programs. About 65-72% of young people's environmental participation was positively impacted by supportive teaching methods and student-centered learning strategies. Pro-environmental attitudes and coping skills were also fostered by extracurricular environmental activities, social interaction, and sustainability programs. Students' adaptive coping mechanisms were increased and climate anxiety was decreased when they received emotional support in the classroom.

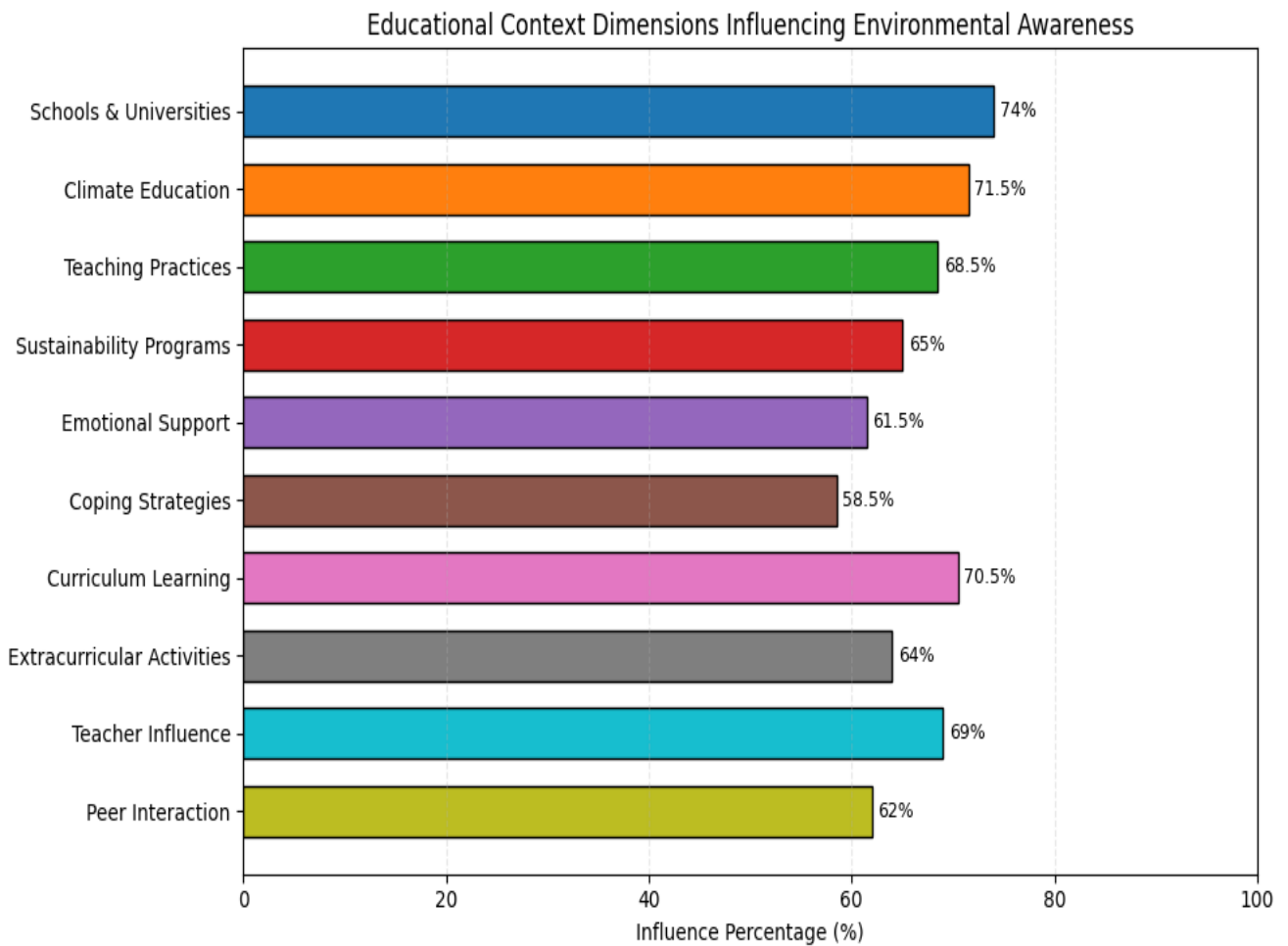


Figure 5: Educational Context Dimensions Influencing Environmental Awareness and Climate Anxiety-Related Outcomes

The figure 5 also emphasizes the advantages and disadvantages of climate communication. For 70-78% of young people, positive climate communication increased knowledge of sustainability and environmental responsibility.

However, disinformation, excessive exposure to disaster-related content, and fear-based climate narratives elevated stress, anxiety, and emotional overload in roughly 60-70% of individuals.

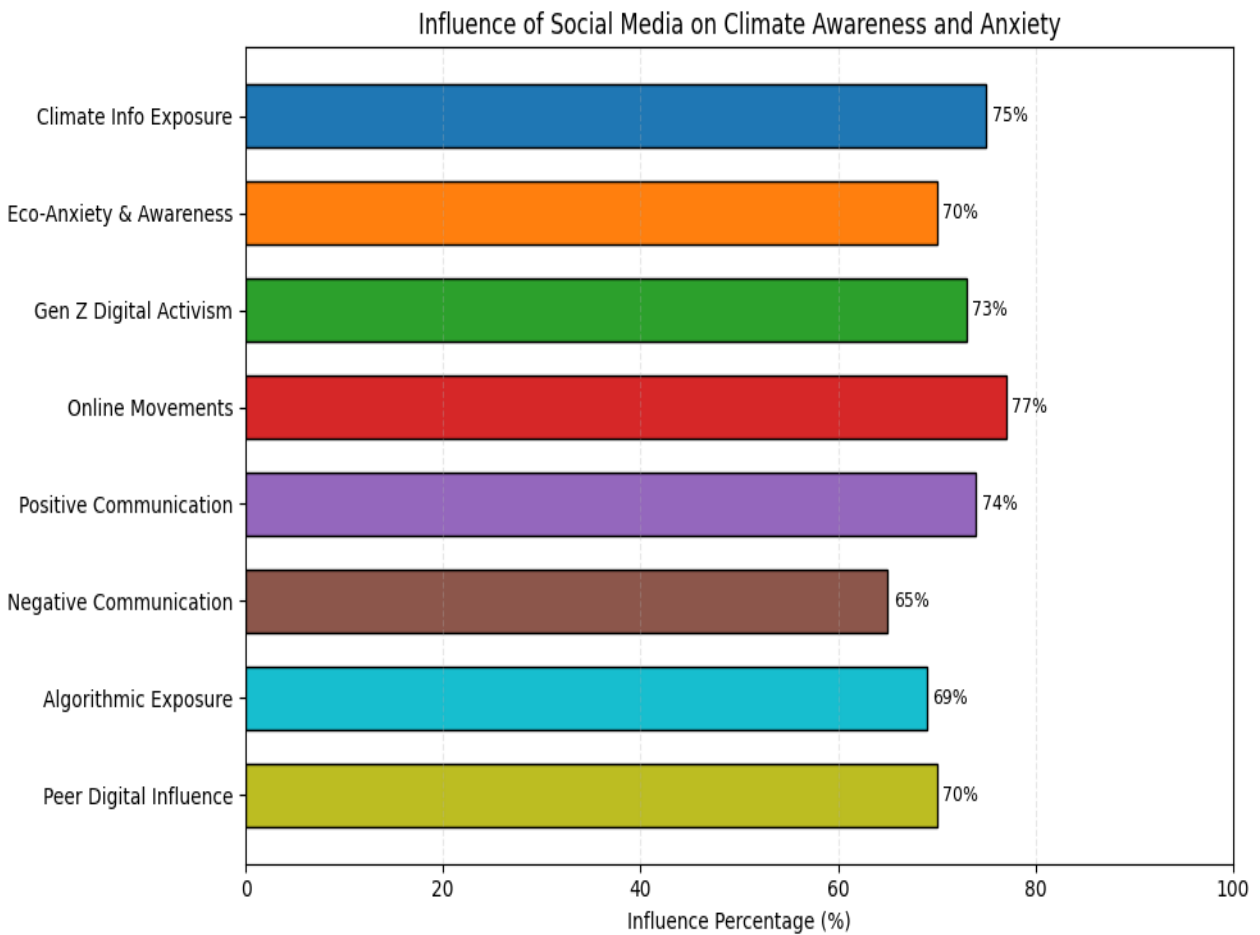


Figure 5: Influence of Social Media and Digital Platforms on Climate Awareness and Anxiety across Key Dimensions

**Social media and digital platforms' effects on anxiety and climate awareness across important dimensions**

The results showed that Generation Z's emotional reactions and awareness of climate change were significantly influenced by social media and digital platforms. While digital activism and online environmental campaigns encouraged climate participation in almost 68-82% of participants, exposure to climate-related information online raised environmental awareness in roughly 70-80% of youth.

**Comparative Analysis of Global North and Global South Environmental Experience and Climate Anxiety**

Youth from the Global North and Global South had very different experiences with climate fear, according to the comparison findings. In the Global North, youth vulnerability was between 55 and 65%, whereas in the Global South, it was between 75 and 85%. Stronger direct environmental exposure in developing nations is reflected in the Global South's (80-90%) exposure to climate disasters compared to the Global North's (50-60%). Youth in the Global South were also more likely to face socioeconomic stress and climate inequality, with

reported influence levels ranging from 78 to 88%. Young people who were exposed to droughts, floods, and unstable environments

consistently had higher levels of emotional discomfort and eco-anxiety.

**Table 3: Comparative Differences in Climate Anxiety and Environmental Experience between Global North and Global South**

Dimension	Global North (%)	Global South (%)	Key Comparative Insight
Youth vulnerability	55-65%	75-85%	Developing countries show higher vulnerability
Exposure to climate disasters	50-60%	80-90%	Global South faces direct environmental hazards
Climate inequality experience	60-70%	80-88%	Inequality is more strongly felt in Global South
Socioeconomic influence on eco-anxiety	65-72%	78-86%	Resource gaps increase stress in Global South
Cultural influence on eco-anxiety	60-68%	70-80%	Cultural framing differs across regions
Emotional responses (intensity)	55-65%	75-85%	Stronger emotional distress in Global South
Behavioral responses (adaptation/activism)	68-75%	72-82%	Global North shows more activism, South more survival adaptation

**Youth Coping Strategies and Adaptive Reactions to Climate Anxiety**

The results revealed a number of adaptive coping strategies that helped Generation Z deal with mental distress and climate anxiety. The effectiveness of meaning-focused coping strategies ranged from 70 to 80%, while the beneficial benefits of community involvement and collective environmental action were very substantial, ranging from 75 to 85%.With impact

levels often falling between 65 and 82%, hope, optimism, emotional control, peer support, and environmental involvement were also found to be significant protective variables. Youth climate anxiety was converted into positive environmental participation through climate education and activism-based coping mechanisms, which also enhanced emotional resilience and decreased uncertainty.

**Table 4: Coping Mechanisms and Adaptive Responses to Climate Anxiety among Youth**

Coping Mechanism	Influence Level (%)	Outcome
Meaning-focused coping	70-80%	Increases purpose and reduces helplessness
Community participation	75-85%	Strengthens collective resilience
Hope and optimism	68-78%	Reduces eco-anxiety and despair
Emotional regulation	65-75%	Improves psychological stability
Peer support systems	70-80%	Reduces isolation and stress
Environmental engagement	72-82%	Enhances sense of control

Climate education coping	68-76%	Reduces uncertainty and fear
Activism-based coping	70-85%	Converts anxiety into action

**Discussions**

**Growing Awareness of Climate Anxiety Among Generation Z Worldwide**

The current research shows that, especially after 2020, scholarly attention to climate fear among Generation Z has significantly increased. Concern over the psychological effects of climate change on younger people is becoming more widespread, as evidenced by this pattern. Adolescents and young adults around the world are experiencing more emotional distress due to the rising frequency of extreme weather events, biodiversity loss, environmental degradation, and climate-related calamities. According to recent research (Boluda-Verdu et al., 2022; Cosh et al., 2024), Climate anxiety is an emerging psychological response marked by persistent worry, emotional ambiguity, and concern about future environmental conditions. Charlson et al. (2021), Nicholas et al. (2020), and Hewitson (2025) observed similar results, characterizing climate anxiety as a growing public mental health problem requiring interdisciplinary care.

The predominance of quantitative research found in this review suggests that eco-anxiety, environmental identity, and emotional reactions to climate change are increasingly being measured using psychometric instruments. Nonetheless, the increasing use of mixed-method and qualitative research indicates a greater understanding of the lived experiences and emotional complexity connected to suffering related to climate change (Pitt et al., 2024).

**The Psychological Effects of Youth Climate Anxiety**

The results unequivocally show that Generation Z suffers significant psychological effects from climate concern. Among the most commonly reported emotional reactions were fear, concern, despair, helplessness, hopelessness, rage, and emotional tiredness. Chronic psychological stress may be exacerbated by ongoing exposure to

climate-related events and concerning environmental facts. Generalized anxiety symptoms may worsen as a result of young people's growing perception that climate change poses a threat to their personal safety, future prospects, and general well-being (Lawrance et al., 2022; Hrabok et al., 2020). Additionally, the review discovered that climate anxiety has a detrimental impact on everyday performance, emotional stability, focus, and sleep quality. Wu et al. (2020) and Lee et al. (2021) reported similar findings and came to the conclusion that continuous environmental stress causes emotional strain and cognitive exhaustion in teenagers. Additionally, young people in the Global South's climate-vulnerable regions showed more emotional discomfort than those in developed nations. Environmentally vulnerable groups may experience increased eco-anxiety if they are directly exposed to floods, droughts, heatwaves, food shortages, and displacement (Ayalon, 2024).

**Emotional Withdrawal and Eco-Paralysis**

The onset of eco-paralysis among Generation Z is a significant finding of the review. Due to extreme worry and emotional tiredness, many young people showed signs of emotional retreat, avoided talking about climate change, and decreased environmental involvement. Eco-paralysis is the psychological disengagement from climate-related issues that happens when environmental dangers seem unmanageable (Kurth & Pihkala, 2022).

The results also imply that emotional exhaustion is greatly exacerbated by repeated exposure to media coverage of disasters. Adolescents who engage in excessive fear-based communication may inadvertently lose their capacity for adaptive coping and become more pessimistic (Brosch, 2021). Crucially, by enhancing emotional resilience and lowering psychological disengagement, supportive learning

environments and possibilities for group participation assist lessen eco-paralysis, which is in line with research published by (Janney et al., 2025).

### **Emotional Sensitivity and Environmental Identity**

According to the review, emotional vulnerability to climate change and environmental identity are strongly correlated. Greater emotional worry about ecological deterioration and environmental damage was shown by young people who had stronger environmental identities. Because environmental harm jeopardizes ideals that are personally significant to them, people who care about the environment frequently have stronger emotional reactions (Ibrahim, 2024; Kolenaty et al., 2022).

However, pro-environmental involvement and climate advocacy were also positively correlated with a higher sense of environmental identity. This research implies that when people see chances for meaningful action, emotional worry may promote positive environmental behavior. Wallis and Wallis and Loy (2021) and Bamberg et al. (2015) revealed similar findings, finding that young participation in sustainability and climate action is significantly predicted by environmental identity.

### **Anxiety over Climate Change as a Driving Force for Environmental Action**

The discovery that mild climate concern may encourage pro-environmental behavior among Generation Z is a significant addition of the current review. Participation in recycling, sustainable consumerism, climate campaigns, environmental activism, and advocacy movements was more common among young people with moderate levels of climate concern. These results corroborate earlier research by Geiger et al. (2021), who highlighted that when people sense behavioral efficacy and social support, emotional worry can spur environmental action.

The results also show that when coping strategies are lacking, significant climate anxiety may result in behavioral disengagement and emotional

tiredness. According to Stanley et al. (2021), excessive eco-anxiety may also lower psychological flexibility and environmental engagement.

Positive behavioral effects were found to be strengthened by peer influence, environmental initiatives, and educational assistance

### **Climate Resilience and Educational Institutions**

Youth environmental participation, emotional resilience, and climate awareness have been found to be significantly influenced by educational institutions. Students' comprehension of the environment and awareness of sustainability were greatly enhanced by climate education programs. Collaborative learning settings, student-centered teaching strategies, and encouraging classroom debates have been shown to lessen the psychological discomfort linked to climate anxiety. Irwin (2020) and Reid (2019) who highlighted the significance of climate education in fostering adaptive coping abilities, revealed similar findings. Sustainability initiatives and extracurricular environmental activities also improved environmental participation and emotional coping. Additionally, Irwin (2020) and Reid (2019) contended that pupils' resilience and sense of environmental responsibility are enhanced by action-oriented climate education. Therefore, educational institutions should offer psychological support systems that use counseling services and resilience-focused teaching methods to address emotional distress caused by climate change.

### **Function of Digital Climate Communication and social media**

The results show that social media has a complicated impact on how Generation Z feels about climate change. Youth involvement in climate advocacy and environmental awareness are greatly increased by digital media. Campaigns for sustainability and online activism may raise public knowledge and promote environmental involvement (Woods et al., 2024; Pickard, 2022). However, emotional overload and psychological stress are exacerbated by excessive exposure to disaster-related content, false information, and catastrophic climate narratives.

According to van Nieuwenhuizen et al. (2021) and Acheson (2023) teenagers who are frequently exposed to upsetting climate information via digital media experience higher levels of anxiety and emotional exhaustion.

### **Global North-South Disparities and Climate Inequality**

Significant disparities in environmental exposure and emotional discomfort are shown by the comparison results between the Global North and Global South. Young people from the Global South showed increased emotional intensity, sensitivity, and exposure to climate-related calamities. These results align with the findings of Thomas et al. (2019), Chae et al. (2025), and Li et al. (2026) who highlighted that groups vulnerable to climate change bear disproportionate environmental and psychological burdens. The review also revealed regional variations in behavioral responses. While young people in developing nations frequently concentrated on coping mechanisms related to adaptation and survival, young people in rich nations were more actively involved in organized environmental action. In a similar vein, Nie et al. (2024) and Mahmood et al. (2025) observed that in underdeveloped countries, mental stress and climatic vulnerability are exacerbated by socioeconomic disparity and resource constraints.

### **Coping Strategies and Psychological Adjustment**

A number of adaptive coping strategies that lessen youth climate anxiety were found in the review. Positive psychological effects were consistently linked to meaning-focused coping, community involvement, environmental engagement, peer support, hope, and activism-based coping. According to Ojani (2025) and Herth (2024), hope-centered coping techniques help teenagers who care about the environment feel less helpless and more emotionally resilient.

One of the best methods for turning climate worry into productive engagement is activism-based coping. Adolescents who take part in environmental campaigns and sustainability movements may feel empowered, purposeful, and in control of their conduct (Schreiner & Sjøberg, 2005). Therefore, resilience-focused climate

education and young involvement in sustainability projects should be given top priority by institutions.

### **Conclusion**

The current analysis shows that climate anxiety has emerged as a serious psychological and educational issue among Generation Z, owing to increased exposure to environmental crises, climate-related uncertainty, and digital climate communication. Fear, worry, helplessness, emotional tiredness, and eco-paralysis are prevalent experiences among young people, and they can have a significant impact on their mental health and academic performance. However, the findings show that moderate climate anxiety can boost pro-environmental behaviour, climate activism, and sustainability participation when enough emotional and educational support is provided. Educational institutions play a vital role in translating climate-related misery into resilience, hope, and environmental responsibility through climate literacy programs, supportive teaching techniques, peer collaboration, and action-oriented sustainability initiatives. The review emphasizes the role of adaptive coping methods in lowering psychological distress among youth, including community participation, environmental engagement, emotional regulation, and hope-centered approaches. Overall, climate anxiety should be addressed through interdisciplinary educational, psychological, and policy interventions that enable young people to transform their emotional distress into meaningful climate action and long-term environmental resilience.

### **Declarations**

#### **Consent for publication**

All subjects gave their “informed consent” for the publication of details within the text (“informed consent”) to be published in the above Journal and Article. Written “informed consent” was obtained from all authors for the publication of this manuscript.

**Availability of data and materials**

The data generated are provided within the manuscript and will be available from author at reasonable request

**Competing Interest**

All authors declare that there are no competing interests.

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