

## CLIMATE ANXIETY CRISIS: HOW YOUNG PEOPLE ARE COPING WITH THE PSYCHOLOGICAL TOLL OF CLIMATE CHANGE IN OSUN STATE, NIGERIA

**Peter Sanjo ADEWALE,**  
Osun State University, Nigeria  
[peter.adewale@uniosun.edu.ng](mailto:peter.adewale@uniosun.edu.ng)

**Oluwaseun Oyebisi ODETOLA**  
University of Ilesa, Nigeria

**Martha Arit BASSEY**  
Osun State University, Nigeria

**Fehintoluwa Elizabeth DADA**  
Osun State University, Nigeria

**Abstract:** *Climate change is a worldwide crisis that has been linked to a range of negative health outcomes, both physical and psychological and younger generations are increasingly feeling the weight of it. Researchers have made a giant stride in providing adaptable strategies to this menace. However, there is a dearth of factual and representative survey research that focuses on the experiences of youths in Osun State concerning this threat. Therefore, this study examined how youths are coping with the psychological toll of climate change in Osun State Nigeria. The study used a descriptive survey to collect data from 157 youths who were randomly selected from the three senatorial districts in the State. Descriptive statistics of frequency counts with percentages were used to analyse the data. The results showed that most youths are experiencing a high level of worry about their health, education, and future. The majority have experienced mental health problems including post-traumatic stress disorder, anxiety and depression, phobias and panic attacks, sleep disorders, cognitive deficits, increased risks of suicide and intellectual disabilities. However, youth are taking action to mitigate the impact of climate change. They have embarked on proper waste disposal, self-education to feel empowered, reducing energy consumption and engaging in climate change activism. Therefore, adults should actively*

*engage in this fight as their involvement will provide a form of reassurance, and model pro-social and eco-friendly behaviours for the youths.*

**Keywords:** climate change; youth; health; psychology; climate crisis; climate anxiety.

### **Introduction**

Feeling anxious about the future is normal for children and young people, but when the cause of that anxiety is the state of the planet, it can be overwhelming. Climate change is a worldwide crisis that has been linked to a range of negative health outcomes, both physical and psychological and younger generations are increasingly feeling the weight of it. Young people are bearing the weight of the climate crisis on their shoulders, leading to increased levels of anxiety and stress. Many young people are making changes in their daily lives to reduce their carbon footprint, such as eating less meat, reducing energy consumption, and using public transportation. Young people are educating themselves about the science of climate change and the policy solutions needed to address it, which can help them feel more empowered and informed. With the growing evidence of climate anxiety becoming a threat to the sense of safety and, stability which is directly linked to psychological anxiety and torture leading to depression and social vices, and also aggravating existing intellectual conditions (Kankawale. and Niedzwiedz, 2023), the menace of climate anxiety may be influenced by certain factors related but not limited to social, psychological and geographical factors. Young people, faced with the palpable evidence of extreme weather conditions and climate degradations, often experience disruption in their sense of safety and stability, as well as being anxious about the future.

The series of climatic degrading evidence confronting the youths (Clayton andKarazsia, 2020) affirm that this menace invariably constitute climate anxiety and distress with the young people seemingly having no hope for the future (Gunasiri, Wang, Watkins, Capetol, Henderson-Wilson and Patrick (2022).

Young people are by far the most affected, and this is manifested by their frustration, anger, sadness, substance abuseetc(Gunasiri et al, 2022). Additionally, Hathaway (2022) in a bid to explore the prevalence of climate anxiety among young adolescents in Aotearoa, New Zealand conducted a mixed method cross-sectional online survey. The average of the participants was 12 years and he was able to establish the widespread anxiety about the future in young adolescents. (2001)Compas, Connor-Smith, Saltzman, Thomsen and Wadsworth

(2001) identified coping strategies that are either problem-focused, emotion-focused and meaning-focused strategies. Strategies that are problem-focused centres around taking action or lifestyle changes (Ojala 2012), while emotion-focused endeavours to buffer negative emotions and meaning-focused indulge in attitudes that fuel positive emotions.

Globally, climate change has been an issue threatening the future of the earth. Due to various environmental changes brought on by storms, wildfires, and rising temperatures, the crises brought on by climate change have significant long-term effects on both physical and mental health (Berry et al., 2018). Climate anxiety can be understood as heightened distress related to the climate crisis that is characterized by a constellation of strong and interconnected emotions such as worry, fear, sadness, anger, and powerlessness (Ray, 2020). Climate anxiety can be connected to many emotions that come from despair, worry, fear, anger and grief. There are widespread reports of high levels of climate-related distress, with children and young people being especially at risk.

Previous research has demonstrated the existence of affective, cognitive, and behavioural elements of psychological discomfort related to climate change. Children and young people are directly impacted by and burdened by climate change as they undergo physical, psychological, social, and neurological development. Climate change poses a threat to mental health that can be understood through stress-vulnerability models of health. Many children and young people have been exposed to chronic stress from childhood which maybe long-lasting impact and may increase the risk of developing mental problem. Some people have become homeless as a result of flooding brought on by climate change, while other children and young people have lost parents and loved ones owing to concerns related to climate change. These events have left them feeling hopeless and have caused learning difficulties, panic attacks, sleep disorders, and despair. Godden et al. (2021) narrated the psychologically problems among children and young children to include: feeling overwhelmed, anger, depression and anxiety. Children and young people are facing serious problems which make them thinking that their future is doomed. They also experienced some betrayal from the adult due to their nonchalant attitudes towards climate change.

UNICEF (2021) report estimates that one billion children are at extremely high risk as a result of climate change issues and research has found that many children have pessimistic views of climate future. Also, there is increasing evidence that climate anxiety is particularly prevalent among young people (Cradon et al., 2022; Clayon and

Karazsia, 2020 and Wu et al., 2020). Moreover, young people currently have limited opportunities for influencing policy-making on climate change given the fact that decision-making systems generally exclude them (Arora et al., 2022). 10,000 young people in ten countries with varying degrees of climate-related vulnerability were the subjects of a recent multinational study by Hickman et al. (2021) that investigated climate anxiety. A concerning percentage of young people reported high levels of distressing emotions, associated functional impacts, and negative future perceptions. Perceptions of insufficient action by governments and feelings of betrayal were linked to distressing emotions, climate anxiety, and functional consequences (Hickman et al., 2021).

Regarding climate anxiety, there is a dearth of factual and representative survey research that focuses on the needs, opinions, and experiences of young people in Osun State. Also, areas of research about integrating climate education, recognizing the mental impact of this climate change and feasible coping mechanisms are needed and worth continued attention in climate anxiety research in developing countries (Ojala 2012; Kankawale. & Niedzwiedz, 2023). This study therefore aimed to provide baseline information on how the children and young people are coping with the psychological toll of climate change in Osun State. Therefore, this study examined how youths are coping with the psychological toll of climate change in Osun State, Nigeria.

### **Materials and Methods**

**Research Design:** A descriptive survey research design was adopted for this study. Descriptive research design is a popular design in education which requires researchers to administer a questionnaire to a sample or to the entire population of people to describe the attitudes, opinions, behaviours or characteristics of the population (Creswell, 2008).

**Study Location:** Osun State Nigeria was used as the study location for this research as Osun State has its unique economic, environmental and social characteristics. The state has its unique cultural factors that influence how individuals perceive and cope with climate anxiety. Using this State allows for a deeper understanding of how cultural beliefs and practices shape the young people's responses to climate change anxiety. The state is located in southwestern Nigeria with rich cultural heritage and diverse landscapes. It is famous for its cultural festivals and sites- Osun Osogbo Sacred Grove.



Figure 1: Map showing the study



location

**Population of the study:** The population for this study comprised of youths in Osun State.

**Sample and Sampling Technique:** The researcher employed a simple random sampling technique to select three hundred youths from the three senatorial districts of Osun State.

**Research Instrument:** This study adapted a survey question titled Climate Change Anxiety Indicator (CCAI) which was used for this study. The questionnaire had two sections. Section 'A' elicited respondent's demographic information such as the name of the respondent, gender, location type and many more, while section 'B' was sub-divided into two with relevant items that were used to elicit relevant responses from the respondents in line with the research questions and hypothesis. The item sections of the instrument were measured on a 4-point Likert scale, ranging from '1' Agree '2' Strongly Agree '3' Disagree '4' Strongly Disagree.

**Validity of the Instrument:** The face and content validity of the instrument were determined before they were administered to the respondents by experts in the field.

**Reliability of the Instrument:** The reliability of the questionnaire was established through a test-retest method. A Cronbach's alpha coefficient of 0.88 was obtained which was very good and attested to the reliability of the instrument.

**Procedure for Data Collection:** The instrument was administered to the respondents by the researcher employing the help of 6 research assistants. They were retrieved immediately after they were completed by the respondents.

**Method of Data Analysis:** Data collected was subjected to descriptive statistics and Analysis of Variance statistical methods.

## **Results**

The demographic characteristics of the respondents are presented below. 67% of the respondents were female while 33% of them were male (Figure 2). All the respondents fell into the youth age grade. They were all 30 years or below (Figure 3). Almost all the respondents (96%) have heard and experienced climate change impact in the last 2 years (Figure 4).

### **3.1. Demographic characteristics of the respondents**

Figure 2: Chart showing the gender of the respondents

Figure 3: Chart showing the age group of the respondents

Figure 4: Chart showing the number of respondents that have heard and experienced climate change impact

### **Respondents level of worry about Climate change impact**

From Table 1, the number of youths that were “extremely worried” about the impact of climate change on their health was 63 which was equivalent to 40 % of their total number and had the highest level when compared to other levels. It is then followed by 48 youths that were “very worried”. Those that were “moderately worried” among the youths were 30 in number while the least number of youths (6) in each were recorded for “not worried” and “a little worried”. Moreover, from table 1, out of 157 youths that responded to the level of their worried about the impact of climate change on their education showed that 60 youths were “very worried”, 42 youths were “extremely worried” and 37 in number were “moderately worried”. Those “not worried” were 15 in number while very few youths that were 3 in number showed “a

little worried” about the impact of climate change on their education. Furthermore from table 1, the information got from the youths about the impact of climate change on their future revealed the number that were “extremely worried” as 61, 37 were “very worried”, 43 were “moderately worried”, 9 were “not worried” at all while no youth responded to have “a little worried” about the impact of climate change on their future.

**Table 1: Respondents level of worry about Climate change impact**

S/ N	Item	E W	V W	M W	L W	N W
1	Are you worried about the impact of climate change on your health?	63	48	30	06	06
2	Are you worried about the impact of climate change on your education?	42	60	37	03	15
3	Are you worried about the impact of climate change on your future?	61	37	45	0	09

*Key: EW= extremely worried. VW = very worried. MW = moderately worried. LW = a little worried. NW = not worried*

### **Youths Emotion about Climate Change**

Table 2 shows youth emotions about climate change as expressed by the respondents. Majority (80%) of the respondent felt hurt because of climate change impact (Table 2). More than half (59%) of the respondents felt powerless about the impact of climate change on them while 51% of the respondents felt optimistic about the impact of climate change. Furthermore, half (50 %) of the respondents were anxious and sad about the impact of climate change. However, half of the respondents were indifferent (Table 2). Less than half of the respondents were afraid, grieved, angry and felt helpless about climate

change impact on them (Table 2). The level of different emotion about climate change as expressed by the respondents is in the following order; Hurt > feeling of being powerless > optimistic > anxious > sad > indifferent > afraid > grief > helpless > angry.

**Table 2: Youths Emotion about Climate Change**

S / N	Item	Yes		No		Prefer not to say	
		Fr eq .	%	Fr eq .	%	Fr eq .	%
1	Hurt	125	80	192	12	13	8
2	Powerless	93	59	587	37	06	4
3	Optimistic	801	51	651	41	12	8
4	Anxious	780	50	705	45	09	6
5	Sad	780	50	705	45	09	6
6	Indifferent	780	50	695	45	10	6
7	Afraid	758	48	790	52	03	2
8	Grief	726	46	544	34	31	20
9	Helpless	758	48	374	24	45	29
10	Angry	603	38	608	38	37	24

### Youth Current experience of Climate Change

The respondents described their current experiences as a result of climate change. These are presented in Table 3 as showed below. Majority (78%) of the respondents were suffering from heat-related illnesses like headache. This they believed is caused by climate change. 48% of the respondents were thinking obsessively about the effects of rainfall and flooding. Less than half of the respondents were taking sleeping tablet due to lack of sleep as a result of excessive heat. In addition less than half of the respondents had suffered from panic attacks due to effects of flooding and excessive heat (Table 3). Also, about 34 % of the respondents had suffered from depression due to effect of flooding and excessive heat. About 23 % of the respondents had infectious diseases due to climate change impact (Table 3).

**Table 3: Current experience because of Climate Change**

S/N	Which of the following do you currently experience or have happened to you in the past?	Freq.	%
1	Heat-related illnesses like headache	123	78
2	Obsessive thinking about the effects of rainfall and flooding	75	48
3	Taking sleeping tablet due to lack of sleep as a result of excessive heat	60	38
4	Insomnia due to excessive heat	57	36
5	Panic attacks due to effects of flooding / excessive heat	57	36
6	Depression due to effects of flooding/ excessive heat	54	34
7	Infectious diseases	36	23

The respondents had been taking actions about climate change mitigation. Some of the strategies they have embarked on include the following. From Table 4, 72 % of the respondents disposed their waste properly while 65 % engaged in self-education concerning climate change for them to feel more empowered (Table 4). 59 % of the respondents do not drive personal cars but made used of public transportation as a means of reducing carbon emission. More than half (57 %)of the respondents reuse and recycle waste products while about half also reduce their energy consumption (Table 4). Less than half (46 %)of the respondents spend time visiting recreation parks (Table 4). Not so many of the respondents eat less meat as a means of reducing their carbon footprint. Engaging in climate change activism was not common among the respondents as only 38 % of them were climate change activists (Table 4).

**Table 4: Youths Climate Change Mitigation Strategies**

S/N	Items	Freq.	%
1	Disposing waste properly	114	72
2	Educating yourself about climate change to feel more empowered	102	65
3	Using public transportation.	93	59
4	Turning to your friends, parents, and mental health professionals for support in dealing with climate anxiety and stress.	90	57
5	Reusing, recycling waste	90	57
6	Reducing energy consumption	78	50
7	Spending time in nature by visiting recreation parks	71	46
8	Eating less meat	63	40
9	Engaging in climate change activism	60	38

## Discussion of Findings

### Level of worry about climate change

The findings of this study revealed that the youth's level of worry about climate change impact was extremely high. They were worried about its impact on their health, education and their future. This is in

confirmation with Jones and Lucas, (2023) who stated that climate change presents significant affective, embodied and existential challenges for young people. They also affirmed that young people are at the forefront of learning to simultaneously endure the distress of a climate-altered world and find pathways for transformation towards more just socio-ecological relations and futures. This is also affirmed by Kankawale and Niedzwiedz, (2023). They also revealed that the menace of climate anxiety may be influenced by certain factors related but not limited to social, psychological and geographical factors. So, young people often experience disruption in their sense of safety and stability as well as being anxious about the future. Ojala (2016) also reported the youth's high level of concern about climate change. Most are associated with feelings of worry, powerlessness and frustration. It can be concluded therefore that many youth are experiencing a high level of concern or worry as a result of climate change. They are concerned about the effect of climate change on their health and future.

#### **Youth's emotion about climate change**

It was also revealed that more than half of the youth in the study showed different emotions about climate change. These include; feelings of powerlessness, fear, helplessness, and anger while some others are optimistic and a few are indifferent. Hickman (2020) adds that one of the young participants in his study described how she was scared to talk about her fear of being judged or criticized for being unreasonable. It was also confirmed that there is a feeling of helplessness because they have been ignored or dismissed by other people when they try to express their feelings about climate change. Thomas, Martin and Benoit (2022) in their results also confirm that many participants in their study described experiencing anger, hopelessness, guilt and sadness in response to climate change. A smaller number endorsed significant anxiety symptoms. Some participants, in their study, tended to experience guilt in terms of not doing enough to combat climate change. All these attest to the fact that the youth are going through a lot of emotional trauma as a result of climate change impacts on them.

#### **Current experience because of climate change**

The respondents described their current experiences as a result of climate change. Some were suffering from heat-related illnesses such as headaches. Other adverse effects of climate change on their mental health are worries, depression, panic attacks and increased risks of suicide. Sanson and Bellemo (2021), in their study, opine that both sudden extreme weather events and slower, longer-lasting climate effects (e.g. rising sea levels, droughts) are increasing in frequency and ferocity. This, in turn, directly causes deaths and injuries, physical ill

health (e.g. through malnutrition, lack of clean water, infectious diseases) and mental health problems including post-traumatic stress disorder, anxiety and depression, phobias and panic, sleep disorders, cognitive deficits and intellectual disabilities. They also added that reaction to climate crisis also include distress, grief, anger, and feeling of hopelessness, increased aggression and violence.

### **Youth climate change mitigation strategies**

The result showed that the youth are taking actions of mitigating the impact of the climate change on them. Some of the strategies they have embarked on are proper disposal of waste, self-education so as to feel empowered, reducing their energy consumption and engaging in climate change activism. According to Thomas, Martin and Benoit (2022), discussing with adults and adolescents what adults are doing to mitigate climate change can provide reassurance, model pro-social behaviours, and inspire their own investment in climate action. Adults, who desire the psychological well-being of young people, should support their concerns and actions around climate change. They should also create avenues for young people to meaningfully engage in climate change.

Pandve, Deshmukh, Pandve and Patil (2009), attest that youth could play a major role in combating climate change. One of such is youth education. This is because youth education represents one of the most effective tools to combat the destructive potential of climate change and cultivate an international understanding among members of the next generation since it is a long-term process that will impact an infinite number of future generations. They conclude that young people who are adept at spreading new habits and technologies are well-placed to contribute to the fight against climate change. The youth are adaptable and can quickly make low-carbon lifestyle and career choices a part of their daily lives. Therefore, to combat the climate change crisis, all hands must be on desks, particularly the youth. This will, in no small way, help in keeping the climate change crisis among youth in check.

### **Conclusion and Recommendations**

The impact of climate change is devastating and the severity of its effects on vulnerable youths can only be imagined and not comprehended as most youth in Osun State are experiencing a high level of worry and emotional trauma due to the impact of climate change. The youths are not only worried about the impact of climate change on their health but are also concerned about the ripple effect of the catastrophe on their education, and future. These youths have experienced different emotions about climate change, including

feelings of powerlessness, helplessness, anger, and optimism. The majority are fearful of the future and what awaits them as this monster called climate change is wreaking havoc daily impacting the livelihood and health of many. Majority of youths are highly susceptible to developing heat-related illnesses such as headaches, depression, panic attacks, and increased risks of suicide. The impact of climate change on their mental health can also cause post-traumatic stress disorder, anxiety and depression, phobias and panic, sleep disorders, cognitive deficits, and intellectual disabilities. This aligns with past research that confirms climate change presents significant affective, embodied, and existential challenges for young people.

Youth education represents one of the most effective tools to combat the destructive potential of climate change and cultivate an international understanding among members of the next generation. They are adept at spreading new habits and technologies that are eco-friendly. They are therefore well-placed to contribute to the fight against climate change. Climate change anxiety is influenced by factors such as social, psychological, and geographical factors, leading to disruptions in youth sense of safety, stability, and anxiousness about their future life and education. Despite the impact of climate change on youth, they are also taking action to mitigate the impact of the change. Majority of them have embarked on activities such as proper waste disposal, self-education, reducing energy consumption, and engaging in climate change activism.

To combat the climate change crisis, it is important that:

1. everyone must work together as global environmentally friendly and sustainable citizens in this fight.
2. adults should actively be involved in the fight against climate change as this will provide a form of reassurance, and model pro-social and eco-friendly behaviours for the youths.
3. needed support must be given to the youths who are more vulnerable to the impact of climate change but can also be used as instruments of change in the fight against climate change because they possess the tools and strength needed in this fight.
4. adults should support their concerns and actions around climate change and create avenues for them to engage meaningfully in climate change mitigation strategies.

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