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Climate-Induced Geological Changes and Mental Health: The Rise of Eco-Anxiety in Pakistan's Hazard-Prone Regions

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Article Details

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ABSTRACT

Over the last few years, Pakistan is experiencing rising instances of climate driven geological waves of unrest, glacial lake outburst, landslides, and droughts causing severe losses not just to the physical environment but to the mental health of its citizens as well. The most critically affected are those youth settled in danger areas who experience increased psychological distress, especially eco-anxiety, a chronic fear of ecological crisis. As global warming is speeding up, knowledge of its psychological effects has become an urgent issue for public health. The purpose of this research is to examine the link between climate elicited geological alteration and eco-anxiety in Pakistani youth with a specific focus on two goals, framed with two questions of research, and investigated with two hypotheses. The research design used is quantitative survey research with an aim to sample 300 Pakistani youth from several hazard prone areas. A structured survey questionnaire is used to collect data and descriptive statistics along with pie chart visualization are used to analyze the data and illustrate response patterns in an understandable manner. The findings showed that a large percentage of the youth population suffers symptoms of eco-anxiety, including chronic worry, helplessness, and fear about the future, particularly those with high levels of media reporting exposure and direct personal experience of environmental catastrophes. Location and gender also proved to be contributing factors towards psychological susceptibility. The research concluded that climate related geological changes are directly related to increasing eco-anxiety levels among young people in at risk areas. In light of these observations, it is suggested that mental health support services mainstreamed into climate adaptation and disaster risk reduction strategies. In addition, climate education and psychological resilience building interventions are implemented at schools, universities, and community centers in order to counteract long term mental health implications of environmental uncertainty.

Introduction

Climate change is no longer a remote environmental issue it has turned into an everyday lived experience, particularly for nations such as Pakistan that are in dire vulnerability to geological and ecological disturbances. In the last decade, Pakistan has experienced a dramatic escalation in climate related disasters, such as glacial lake outburst floods, intense landslides, and heavy monsoon flooding. These occurrences have far reaching effects over both rural and urban landscapes, uprooting lives, bringing, and threatening economic stability. The physical environment is being remade on a massive scale, with rivers bursting their banks, glaciers melting, and soil erosion on the rise, thus undermining the very roots of communities. But more than the visible devastation is an overwhelming and largely unappreciated byproduct of the growing psychological cost to the people, especially the youth, who are now reporting increasing symptoms of emotional distress as they fear for their future and the planet.

Eco-anxiety is defined as chronic concern, fear, and a feeling of powerlessness regarding environmental degradation and the uncertain future of the planet. It is overwhelmingly experienced by young people, who not only inherit the physical consequences of climate change (Nasir, 2025) but are also weighed down with knowledge of its potentially disastrous implications on their health, safety, and overall life chances. In Pakistan, the youth population residing in risk areas like Gilgit Baltistan, Chitral, Sindh, and southern Punjab experience a distinct and increasing problem. All of these regions have turned out to be climate disaster hotspots, with young people witnessing the impact more repeatedly and intensely compared to the past generations.

The world is witnessing a surge in extreme climate events, and their growing intensity paints a troubling picture of escalating destruction. As global demographics shift, so too does our vulnerability leaving communities increasingly exposed to sudden shocks like floods and creeping threats like droughts (Banholzer et al., 2014). The science is clear: climate change is turning up the dial on the frequency, power, and brutality of natural disasters (Elizabeth et al., 2013). From 2005 to 2015, floods and droughts left a staggering toll over 700,000 lives lost and economic damage estimated at US$1.3 trillion (UNISDR et al., 2018; UNISDR, 2012). These disasters didn't just claim lives; they disrupted over 1.5 billion others, hitting women, children, and the marginalized the hardest (UNISDR et al., 2018; UNISDR, 2012). The evidence is mounting and global in scope no region is immune, though not all are impacted equally. While the international debate on climate change generally focuses on physical and financial losses e.g., crop loss, displacement, and physical destruction of infrastructure the mental health impacts are under estimated, particularly in developing nations like Pakistan. Although cross border research is started to identify eco-anxiety as an emerging issue of public health, Pakistani research on the impact of climate driven geological changes on the psychological state of the youth is still rare. This absence of locally driven research leaves a fundamental blind spot, reducing the knowledge on how environmental instability is articulated into mental health issues in the unique socio-cultural and ecological environments of Pakistan.

In East Africa's drylands the Arid and Semi-Arid Lands (ASAL) of Djibouti, Ethiopia, Somalia, and Kenya food insecurity casts a long shadow (World Bank, 2011). Kenya's Isiolo County, part of this fragile zone, is frequently battered by both droughts and floods (Isiolo CIDP, 2013). As climate impacts intensify, the mental health dimension especially in places like Isiolo remains dangerously underexplored (Imelda et al., 2014). This research aims to fill this particular gap by examining the effect of climate driven geological change on young Pakistanis' mental health in terms of the intensity and prevalence of eco-anxiety. It also explores how different demographic and contextual variables e.g., exposure to climate related media frames, direct experience with environmental risk, gender, and geographic region affect psychological vulnerability. By producing evidence on these dimensions, the study hopes to guide the development and delivery of mental health interventions and policies attentive to the context of climate change in Pakistan (Anwar, 2025). Finally, the research informs the

development of climate resilient public health policy that promotes the psychological well-being of young people in the country's most at risk areas, and adaptive capacity in the context of continued environmental stresses.

Background

Climate change has become one of the most characteristic issues of the 21st century, and it has extremely wide ranging implications for the natural environment and human health (Nasir et al., 2025). Globally, warmer temperatures, glacial melting, and intense hydro logical phenomena are transforming ecosystems and posing a threat to the stability of communities. One of the less spoken impacts of this environmental disaster is its increasing effect on mental health, specifically the phenomenon of eco-anxiety, a chronic psychological state of ongoing fear, helplessness, and despair regarding environmental destruction and the perceived breakdown of ecological stability. According to the Climate Risk Index (Kreft et al., 2014), developing nations particularly in Sub-Saharan Africa are on the frontlines of climate-driven catastrophes (UNISDR & CIMA, 2018). The consequences are severe, often stripping people of their homes, health, and hope. Places like Haiti, the Philippines, and Pakistan have endured recurring trauma from weather-induced disasters (Jamal, 2016), with the Asia-Pacific region also facing relentless climate extremes (Jamal et al., 2016).

In Pakistan, the risk is particularly stark. Ranked in the top 10 most climate exposed nations by the Global Climate Risk Index, Pakistan is witnessing a dramatic surge in climate driven geological transformations such as melting glaciers in the north, flooding in the Indus River basin, long lasting droughts in the arid region, and regular landslides in hilly terrain. These events not only result in mass displacement, economic loss, and infrastructural destruction but also imprint deep psychologic wounds on affected populations especially among the young, who are more emotive and cognitive to accept future oriented fears.

Young people in Pakistan's danger zones are developing in a condition of increased environmental uncertainty. Their repeated experience of natural disasters, climatic warnings on the television and radio, and the international discussion of environmental disaster all contribute to an environment of chronic psychological distress. This has produced a self-evident cycle of climate-related mental health issues, such as anxiety, stress, trauma, and existential fear contributing together to what is internationally accepted as eco-anxiety.

In spite of the growing numbers of such occurrences and the apparent psychological cost they exact, climate change research in Pakistan is dominated almost exclusively by physical and economic concerns. Few empirical efforts have addressed the psychological and emotional implications, especially among young people, who are both a vulnerable and a vitally important population for the nation's future.

This research, thus, addresses the country's imperative need for localized, evidence based understanding of the intersection of climate driven geological transformations and Pakistani mental health trajectories. Through analysis of eco-anxiety as a quantifiable psychological symptom in Pakistani youth, this research fills a vital gap in countrywide climate resilience planning and mental health debates. The results not only guide health professionals and policymakers but will also contribute to a more general knowledge of how environmental unpredictability overlaps with emotional well-being in developing nations.

Problem Statement

Climate change is increasingly expressing itself in the form of geological perturbations like glacial lake outbursts, floods, landslides, and droughts events that are becoming startlingly common in Pakistan. These events have extensive ramifications, both in the physical and economic sense but also for the mental health of the people, especially the youth. Young people residing in climate exposed communities are disproportionately impacted by the anxiety, fear, and emotional pain that come with environmental degradation, even though they are at the center of Pakistan's future.

A developing body of international work identifies eco-anxiety as a global mental health issue, particularly

among increasingly climate aware and exposed youth (Nasir, 2025). Nevertheless, within Pakistan, the convergence of climate driven geological transformations and youth mental health is not yet understood empirically and remains in need of exploration. There is a critical lack of data on how environmental instability influences the mental health of young individuals, and how factors such as media exposure, regional vulnerability, and disaster experience contribute to psychological outcomes like eco-anxiety (Nasir, 2025). But the wreckage isn't only physical. Climate disasters leave deep emotional scars. The despair and loss triggered by these events can spark anxiety, depression, and in extreme cases, suicidal thoughts (Bourque & Cunsolo, 2014). After Hurricane Katrina, studies linked widespread psychological disorders directly to disaster exposure (Galea et al., 2007). As the climate crisis deepens, so too does its impact on mental health (Clayton et al., 2014).

This lack of information restricts policymakers, mental health experts, educators, and disaster management officials from planning successful, youth oriented interventions and climate-resilient mental health care systems. Without empirical understanding of the psychological effect of environmental change, Pakistan stands to ignore a silent, unfolding crisis among its most valuable population (Hussain, 2025).

Therefore, in the present study an endeavor is made to explore the role of climate induced geological changes in the development of eco-anxiety in Pakistani youth and the contribution of variables like exposure to climate disasters and climate related media content to increasing mental health issues in hazard areas.

Research Questions

1. To what extent do climate induced geological changes contribute to the development of eco-anxiety among Pakistani youth living in hazard regions?

2. In what ways does climate change media coverage affect the intensity of eco-anxiety felt by young people in vulnerable regions of Pakistan?

Research Aims

1. To find how the mental well-being of young people in Pakistan is affected by climate induced geologic changes, specifically the incidence and magnitude of eco-anxiety in areas at risk of disaster

2. To find out the effect of media exposure to climate change on the psychological reactions of young people, specifically facing anxiety, fear, and concern for the environment

Research Gap

In the international research is increasingly showing the psychological effects of climate change, most significant the development of eco-anxiety among youth, empirical research in the Pakistani context is thin. Current literature about climate change in Pakistan stressed mostly physical, environmental, and economic factors like glacier reduction, flooding, and agricultural loss, with very less discussion of mental health effects. Heat waves, floods, and droughts aren't just environmental phenomena they are public health emergencies. When disasters strike, they can overwhelm the mental resilience of individuals and communities alike (Francois et al., 2014). Survivors often emerge traumatized, displaced, and stripped of their dignity (Obradovich et al., 2018). From life-threatening injuries to family separations and long-term displacements, the psychological fallout can be as devastating as the physical (Freedy et al., 2007).

In addition, research on youth mental health in Pakistan hardly delves into climate driven stressors and does not examine how exposure to media coverage of climate change impacts emotional and psychological states. While there is increasing anecdotal and media evidence of the emotional cost of environmental catastrophes, little systematic, data based research is conducted to explore how climate driven geological shifts impact the mental lives of youth in high risk zones.

This missing of localized research leaves a significant gap in academic knowledge and public policy,

healthcare workers, teachers, and climate policymakers from creating targeted interventions based on the psychological needs of climate effected youth in Pakistan. This research, therefore, fills a key gap by connecting climate provoked by geological danger, with the increasing trend of eco-anxiety.

Hypotheses

H_1: Climate change induced geological changes have a statistically significant association with the intensity of eco-anxiety among Pakistani youth living in hazard prone areas

H_2: Exposure to climate change media significantly affects the severity of eco-anxiety among Pakistani youth

Significance of the Study

This research is of great importance at the confluence of climate change, mental health, and youth well-being in Pakistan, which is both demographically young and ecologically vulnerable. With climate induced geologic changes occurring more and more frequently and severely, especially in areas such as Gilgit-Baltistan, Chitral, Sindh, and south Punjab, the psychological effects of these changes on the youth of these regions are an under explored but expanding public health issue.

By focusing on eco-anxiety as a new mental health problem, this study pointing a relatively disadvantag aspect of Pakistan's climate change discussion. It provides empirical insights into the ways in which geological disturbances and news stories taking part to psychological distress among young people, thus addressing an essential gap in Pakistan's national and regional literature.

The research is also important for mental health practitioners, as it underscores the importance of including climate trauma and anxiety in diagnostic tools and therapy. For educators and school counselors, the results are used to develop awareness campaigns and emotional resilience programs in schools and universities.

In addition, the research provides useful insights to climate policymakers and disaster management officials, point out the need to help mental health assistance into climate adaptation and risk reduction planning. Through the identification of psychological weakness as a climate risk factor, the study forms a basis for more fused, and youth oriented policy planning.

Literature Review

Extreme climate hazards are becoming increasingly concerning due to the rising scale of destruction and damage. Global demographic trends present a bleak outlook of vulnerability to both sudden-onset (floods) and slow-onset (drought) disasters (Banholzer et al., 2014). Researchers have forecasted that the frequency, intensity, and severity of disasters have worsened as a result of climate change (Elizabeth et al., 2013). Between 2005 and 2015, floods and droughts claimed 700,000 lives globally and inflicted economic losses amounting to approximately US$ 1.3 trillion (UNISDR et al., 2018; UNISDR, 2012). During the same period, over 1.5 billion people were affected by disasters, with women, children, and vulnerable groups disproportionately impacted worldwide (UNISDR et al., 2018; UNISDR, 2012). The global effects of extreme climate events are extensively recorded and clearly expressed.

According to the Climate Risk Index (Kreft et al., 2014), developing countries, especially in Sub-Saharan Africa, are more susceptible to disasters primarily due to natural hazards linked to climate change (UNISDR & CIMA, 2018) than wealthier nations. This has led to increasing physical and psychological burdens. Weather-induced disasters have impacted numerous nations, notably Haiti, the Philippines, and Pakistan (Jamal, 2016). The Asia-Pacific region is particularly exposed to severe climate phenomena (Jamal et al., 2016).

Extreme climate incidents can lead to hopelessness, suicidal ideation, and, if persistent, can undermine recovery efforts and expectations (Bourque and Cunsolo, 2014). Research indicates that exposure to the stressors of Hurricane Katrina was strongly correlated with the prevalence of mental health issues among the population (Galae et al., 2007). Climate-related disasters are likely to trigger psychological disturbances

stemming from crisis conditions (Clayton et al., 2014).

The direct impact on physical and mental well-being of individuals and communities is substantial when subjected to heat waves, droughts, and floods. These events can overwhelm the capacity of affected communities to cope (Francois et al., 2014). High-magnitude disasters often leave survivors traumatized, stripped of possessions, and dignity (Obradovich et al., 2018). Levels of exposure to disaster-related stressorssevere injuries, fear of death, actual death, and family separation due to prolonged displacement can lead to acute or chronic mental illnesses (Freedy et al., 2007). Climate change has emerged as one of the most significant global challenges of our time, posing profound threats to the environment, economic systems, and human well-being. The Intergovernmental Panel on Climate Change (IPCC, 2014) attributes this crisis largely to human-induced activities such as fossil fuel combustion, deforestation, and the emission of greenhouse gases. These actions have led to observable consequences including rising sea levels, melting glaciers, and increasingly severe weather events (IPCC, 2014).

In response to escalating global risks, the United Nations introduced the 2030 Agenda for Sustainable Development in 2015. This ambitious framework outlines 17 Sustainable Development Goals (SDGs) and 169 measurable targets intended to address critical issues worldwide by 2030 (Nerini et al., 2017). Notably, SDG 13 specifically targets climate action, urging immediate efforts to reduce environmental harm and enhance adaptive capacities (United Nations General Assembly, 2017).

Central to climate action is a comprehensive strategy encompassing mitigation, adaptation, and a nuanced understanding of environmental shifts (United Nations, n.d.). Key initiatives include reducing greenhouse gas emissions, building resilience to climate-related effects, and fostering public awareness of the interconnected systems driving global climate change. SDG 13 also calls for enhanced institutional and community-level capacities, effective implementation of the United Nations Framework Convention on Climate Change (UNFCCC), and development of robust planning mechanisms to manage climate risks (United Nations, n.d.). Mitigation is a critical component of climate policy, primarily involving the reduction of greenhouse gases such as carbon dioxide and methane principal contributors to the greenhouse effect and global warming. Addressing climate change requires concerted action from governments, industries, and civil society alike. Moreover, the cross-cutting nature of climate change necessitates its integration across all development goals (Smajgl et al., 2015).

Nerini et al. (2019) argue that tackling climate change could advance progress on all 17 SDGs. For instance, its negative effects intensify food and water insecurity (SDGs 2 and 6), increase disease burdens (SDG 3), and disproportionately impact vulnerable groups, especially women and children (SDGs 5 and 4). Simultaneously, effective climate action promotes access to clean energy (SDG 7) and sustainable economic growth (SDG 8) (Sachs et al., 2016). Reports from UNICEF (2022) and OCHA (2022) further highlight the destructive toll of climate-linked disasters, such as monsoon-induced floods, which have displaced millions and caused significant infrastructure losses. The World Bank (2022) estimates these damages in the billions of USD.

Parallel to scientific and policy frameworks, the role of media in shaping public perception of climate change has gained increasing attention. While empirical evidence and international agreements provide a foundational basis for action, media narratives profoundly influence how individuals understand and respond to climate-related issues (Boykoff & Roberts, 2007). Media representations through news coverage and other formats can elevate awareness, shape attitudes, and drive or deter public engagement (Nisbet & Scheufele, 2009; Stecula & Merkley, 2019).

Framing, in particular, plays a pivotal role in how the public interprets environmental news. The media's emphasis on certain aspects of climate change while omitting others can significantly alter public responses. For instance, presenting climate change as a health crisis may boost support for climate initiatives, whereas highlighting the economic cost of renewable energy can lower enthusiasm (Nisbet & Scheufele, 2009). As Wilson (1995) and McCombs (2011) note, the media often act as translators of complex scientific discourse,

converting technical information into more accessible narratives.

Yet, this influential role is not without drawbacks. Inaccurate or sensationalist coverage can lead to misinformation, underscoring the need for ethical, balanced journalism that promotes accurate public understanding (Nisbet & Scheufele, 2009). The contemporary media ecosystem spanning newspapers, television, radio, and online platforms is populated by a diverse range of communicators, including journalists, editors, and digital influencers (Boykoff & Roberts, 2007). These actors use various formats, from investigative journalism to performance art, to engage audiences with climate content.

The evolving relationship between climate science and media continues to draw scholarly interest. Bauer's (1995) early work examined media's role in shaping public discourse during the nuclear power debate, while more recent studies explore digital media's influence on climate communication (Brüggemann & Engesser, 2014). Strategic use of metaphors, visual imagery, and emotional appeals remains central to shaping public discourse (Boykoff & Boykoff, 2007), confirming that the media does not merely report on climate change it plays a transformative role in how societies perceive and respond to it. The Horn of Africa's Arid and Semi-Arid Lands (ASAL)—including Djibouti, Ethiopia, Somalia, and Kenya face heightened vulnerability to food insecurity (World Bank, 2011). Kenya is not exempt; for instance, Isiolo County in eastern ASAL, covering about 80% of the country's land, suffers frequent droughts and floods (Isiolo CIDP, 2013). Disaster impacts are rising rapidly, especially in middle-income countries, posing significant risks (Imelda et al., 2014). Mental health risk assessments in relation to disasters remain unmeasured in Isiolo and more broadly across Kenya.

Research Design

This research used a quantitative design based on a survey research design to investigate the connection between geological changes triggered by climate and eco-anxiety among Pakistani youth residing in high risk areas. It used a quantitative design because the availability of measurable data or facts from a large number of respondents was needed to determine trends, test hypotheses, and make statistically sound inferences.

The survey approach permitted standardized responses from a sample of 300 Pakistani youth, which ensured comparability and consistency among participants. The standardized questionnaire contained closed ended items, such as Likert scale questions, to measure variables like exposure to climate related events, influence of media, and symptoms related to eco-anxiety

The research is particularly interested in youth (16 to 30 years) from geographically exposed areas, i.e., Gilgit-Baltistan, Chitral, Sindh , and southern Punjab. The sampling technique employed is purposive to make sure that the respondents either is a personal experience with environmental hazards or are exposed to climate information through the media.

The information gathered are examined via descriptive statistics and illustrated by pie charts to provide a pictorial description of dominant trends in the findings. This formatting allowed for testing the study's two hypotheses and for the researcher to make connections between environmental exposure, media coverage, and mental health effects, namely, the existence and severity of eco-anxiety.

This research used a quantitative method of research with a survey research design to explore the link between climate driven geological shifts and eco-anxiety among Pakistani youth in hazard prone areas.

Population and Sample

The population in focus for this study included Pakistani youth between 16 and 35 years old living in climate related geological hazard-prone areas of Gilgit-Baltistan, Chitral, Sindh's flood hit areas, and drought stricken southern Punjab; furthermore all provinces of Pakistan are covered. A sample size of 300 participants is chosen based on a purposive sampling method to ensure that the respondents are either affected by climate related disasters or habitually subject to media reports about climate change.

Data Collection Instrument

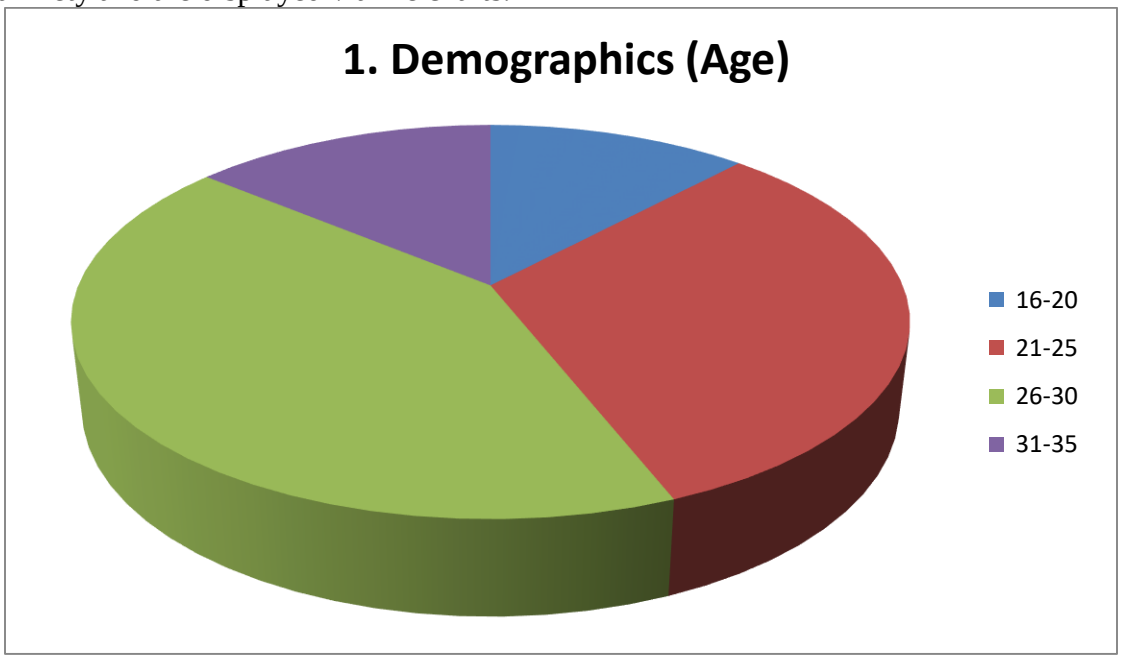
A standardized survey questionnaire is also created as the main data gathering instrument. The questionnaire had four parts: demographic details, exposure to climate driven geological changes, media consumption regarding climate change, and evaluation of eco-anxiety symptoms. The section on eco-anxiety employed a standardized Likert scale to measure emotional responses like anxiety, worry, and helplessness with respect to environmental conditions.

Data Collection Procedure

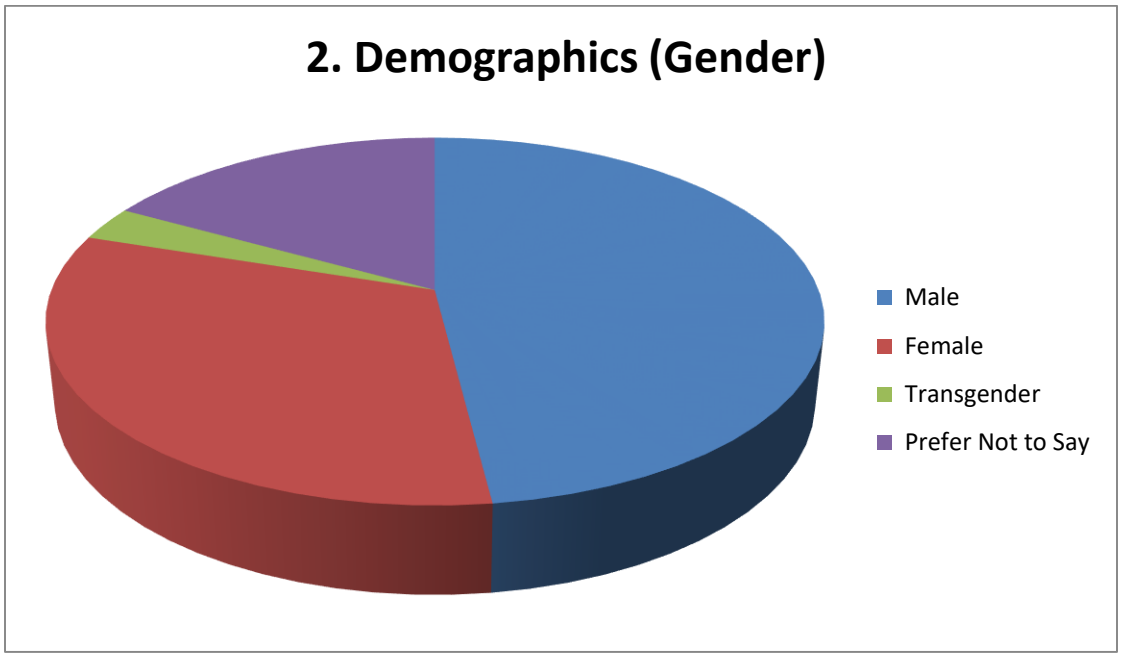
Data are gathered via online survey and in person administration to access a wider participant pool. The online survey was circulated through social media and university networks, with in person surveys carried out within focused communities and schools within the chosen regions. Samples are informed about the aim of the study and soothed of confidentiality before to gaining informed consent.

Data Analysis

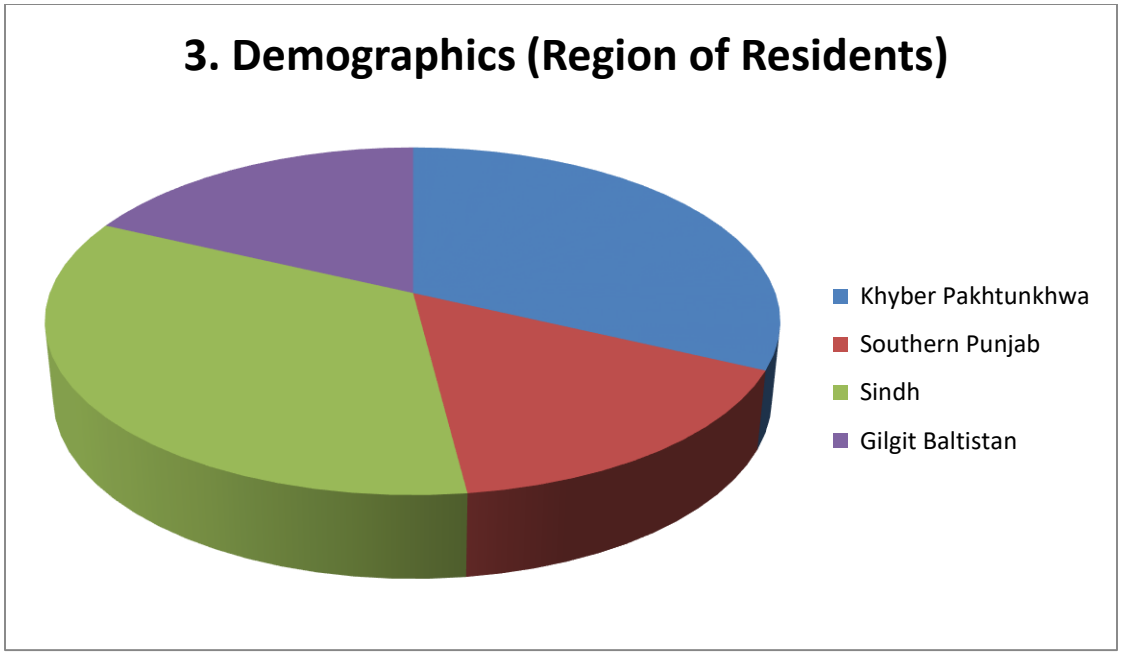
The study maintained strict ethical protocol, including informed consent, voluntary participation, confidentiality, and privacy of respondents. Participants could withdraw at any time without penalty. Collected data are also coded and analyzed with statistical software in order to conduct summarizing statistical tests. Most significant findings are depicted visually using pie charts to show the breakdown of eco-anxiety levels, rates of exposure, and media influence among young people. Correlation tests are carried out in order to test the two hypotheses concerning the relation between climate change contact and media influence and eco-anxiety and are displayed via Pie charts.



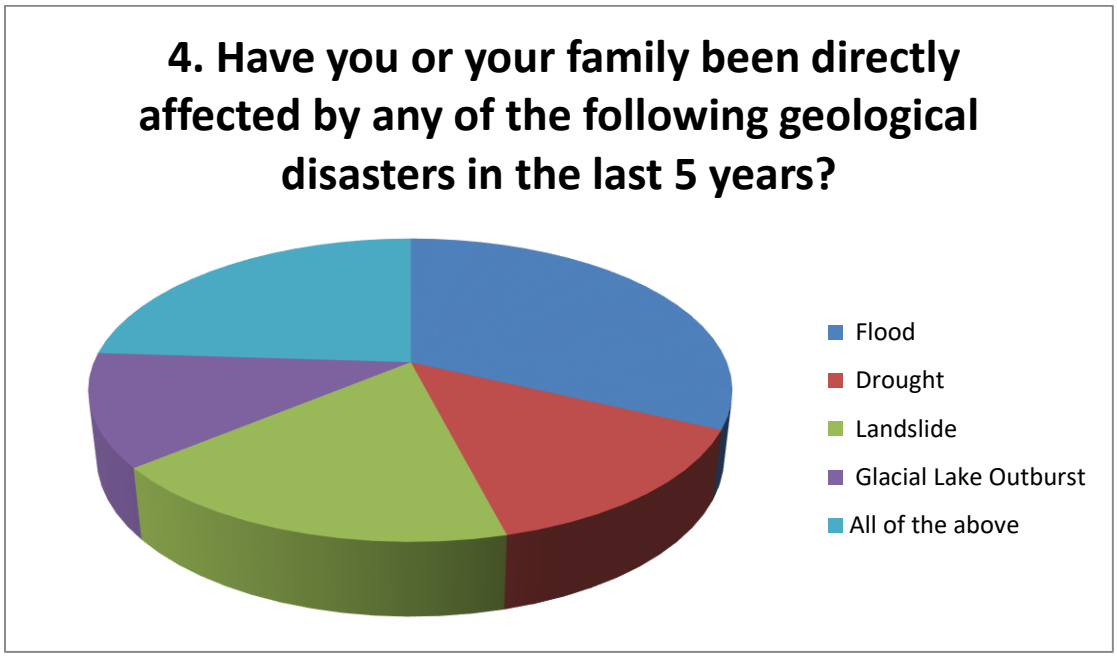
Discussion: The demographics data reveals that majority of respondents from collected data are among the age group of 21-25 and 26-30 while respondents also includes the youth of age group 16-20 and 31-35 from Pakistan.



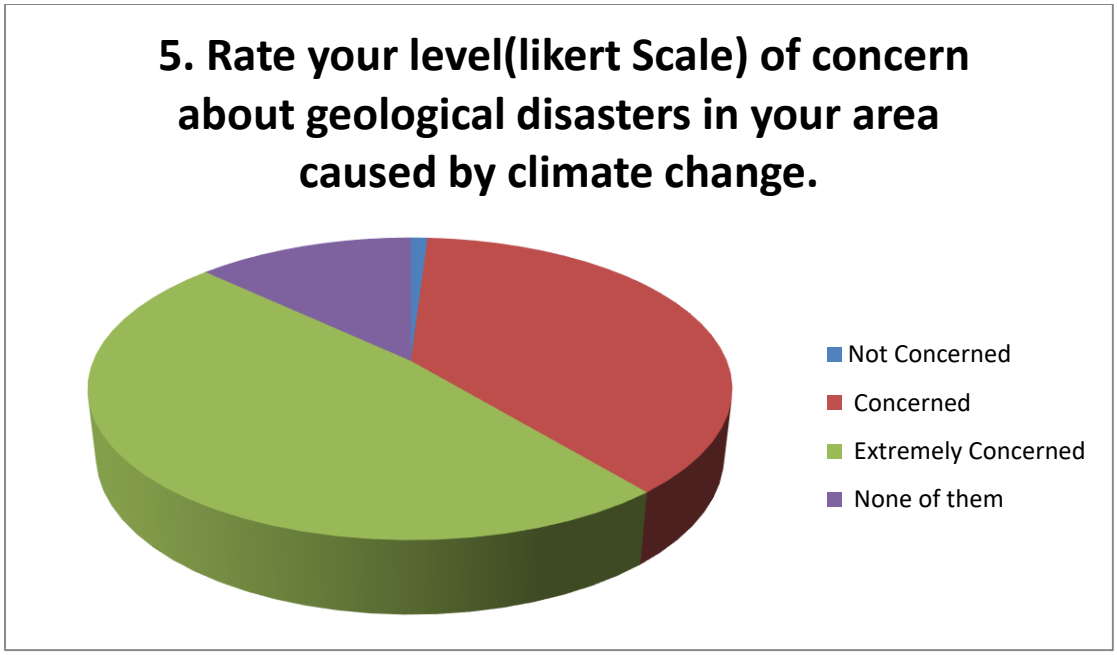
Discussion: The demographics gender based data reveals that majority of respondents from collected data are male and similarly second ranked respondents are female while rests of the respondents responded as transgender(3%) and others preferred not to reveal their gender based identity.



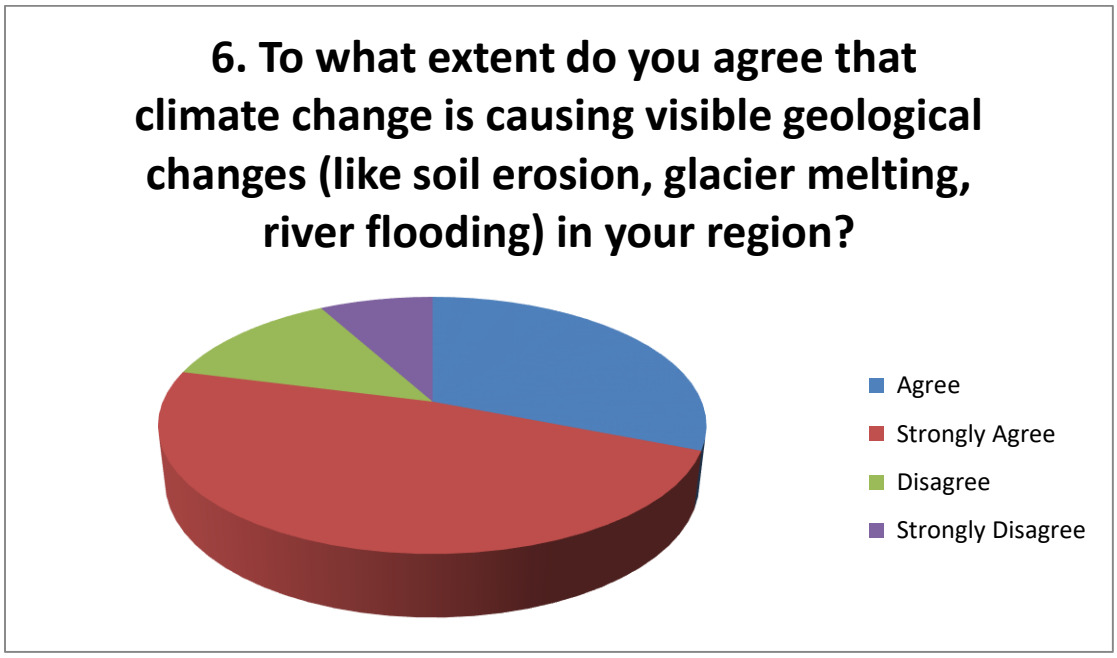
Discussion: Data is collected from the sample of population from Khyber Pakhtukhwa , Southern Punjab, Sindh and Glgit Baltistan which are effected by climate geological disasters in various forms like floods and land sliding etc.



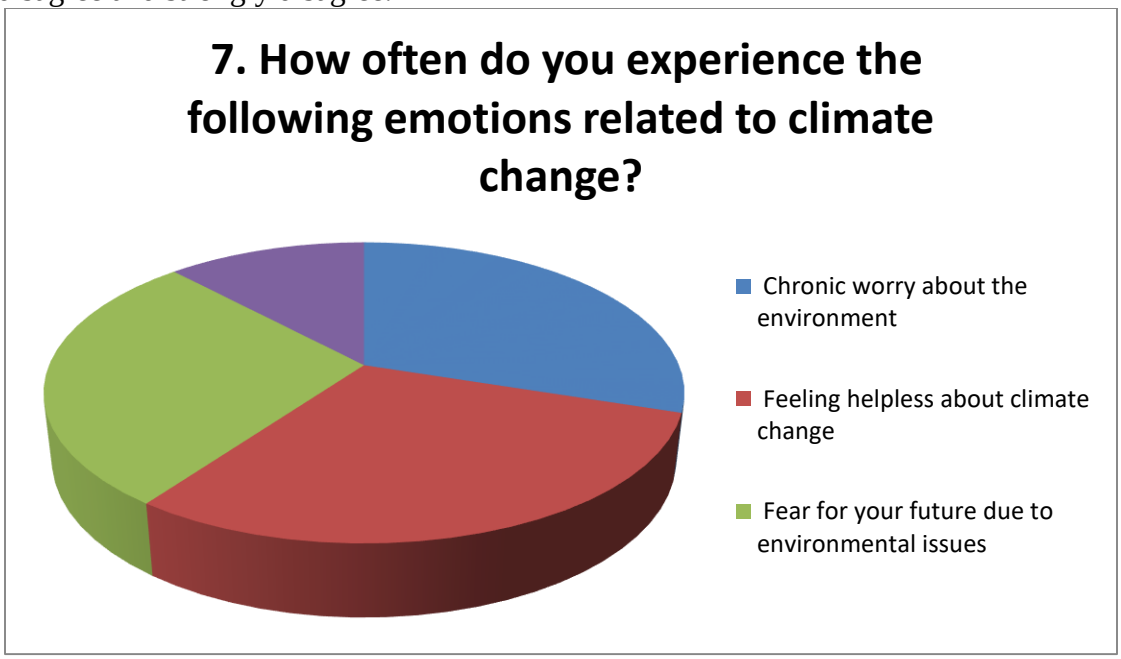
Discussion: The study found that people of special effected regions from all provinces of Pakistan in the last five years faced floods, drought, land sliding, glacial lake outburst and faced the severe geological damages caused by climate change leading to create dissonance in the mental health known as Eco-Anxiety at different levels across Pakistan.



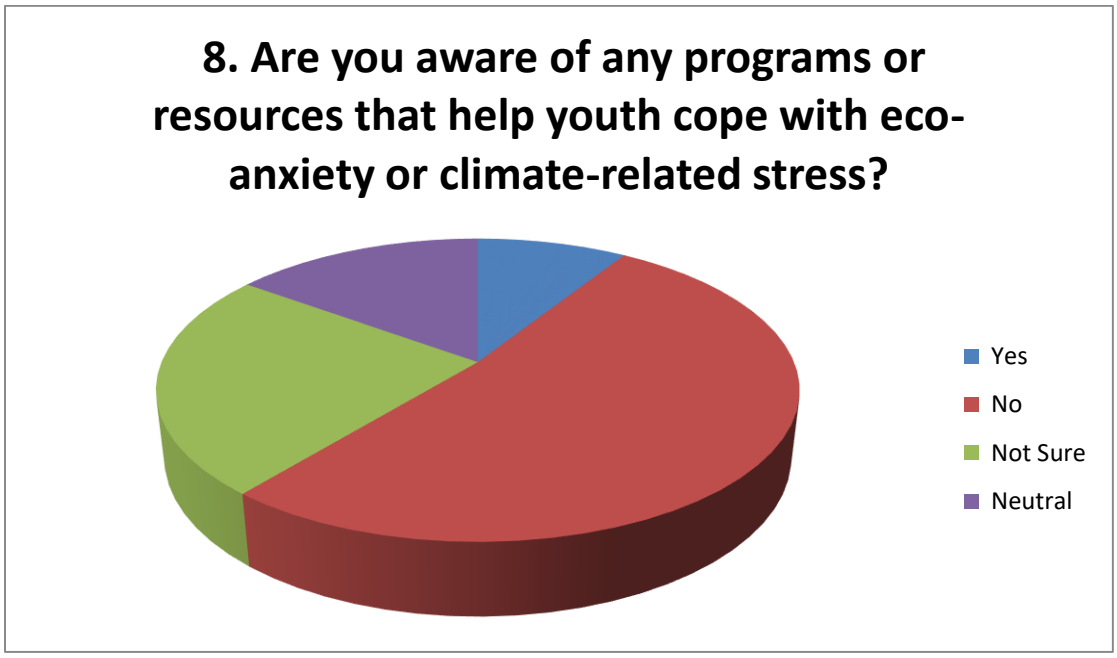
Discussion: People are concerned about geological disasters in their areas caused by climate change at various likert scale rating levels i.e.., a lot of people are extremely concerned regarding geological disasters in their area caused by climate change while other concerned and few responded as not concerned similarly other responded as none of them.



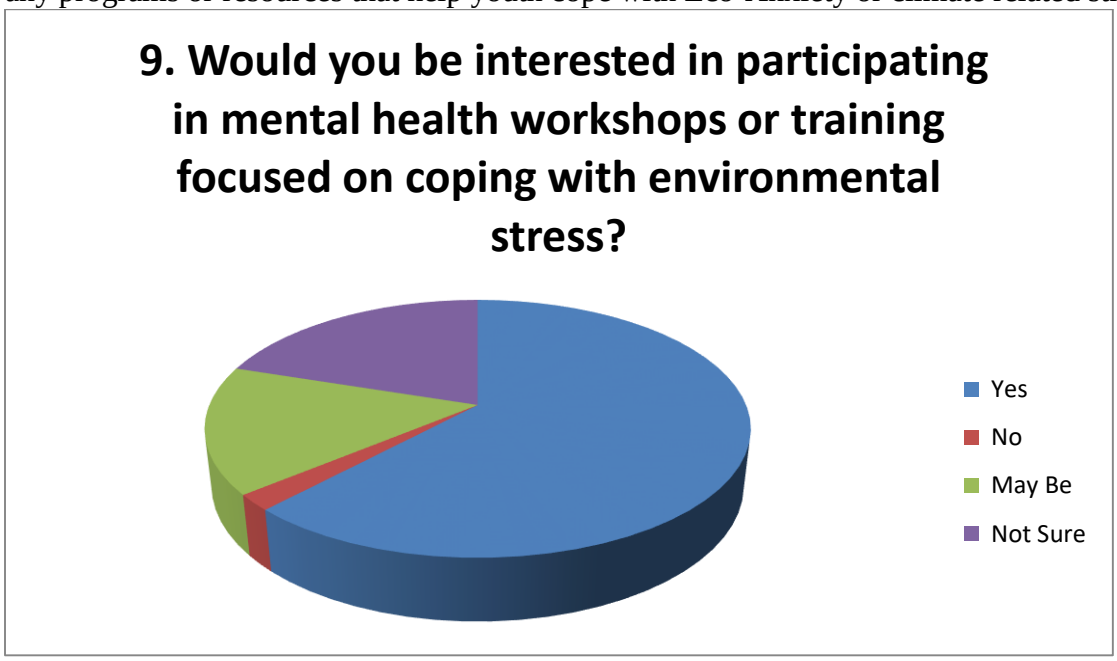
Discussion: While analyzing the collected data it is concluded that majority of respondents strongly agree that Climate Change is causing visible geological changes like soil erosion, glacier melting, river flooding in the various regions across Pakistan while others agree this questionnaire statement and few of them responded as disagree and strongly disagree.



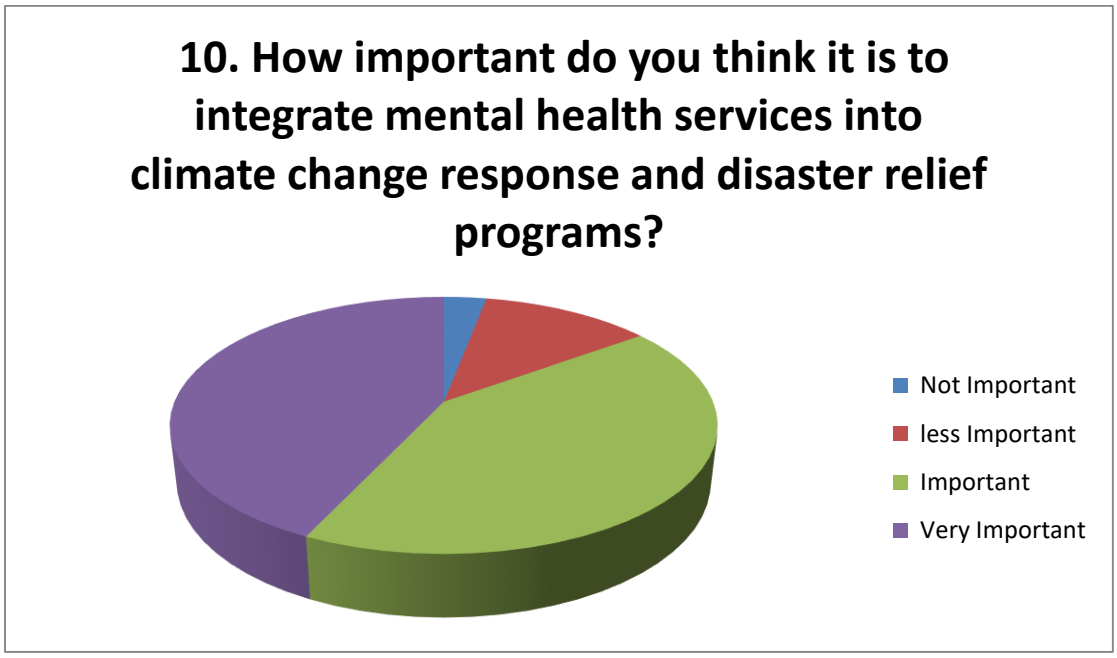
Discussion: Public sentiment and the emotions after experiencing the climate change includes the following; feeling helpless about climate change at peak, chronic worry the environment as second ranked response, and fear of future due to environmental issues as third ranked last but not the least response of sample from population.



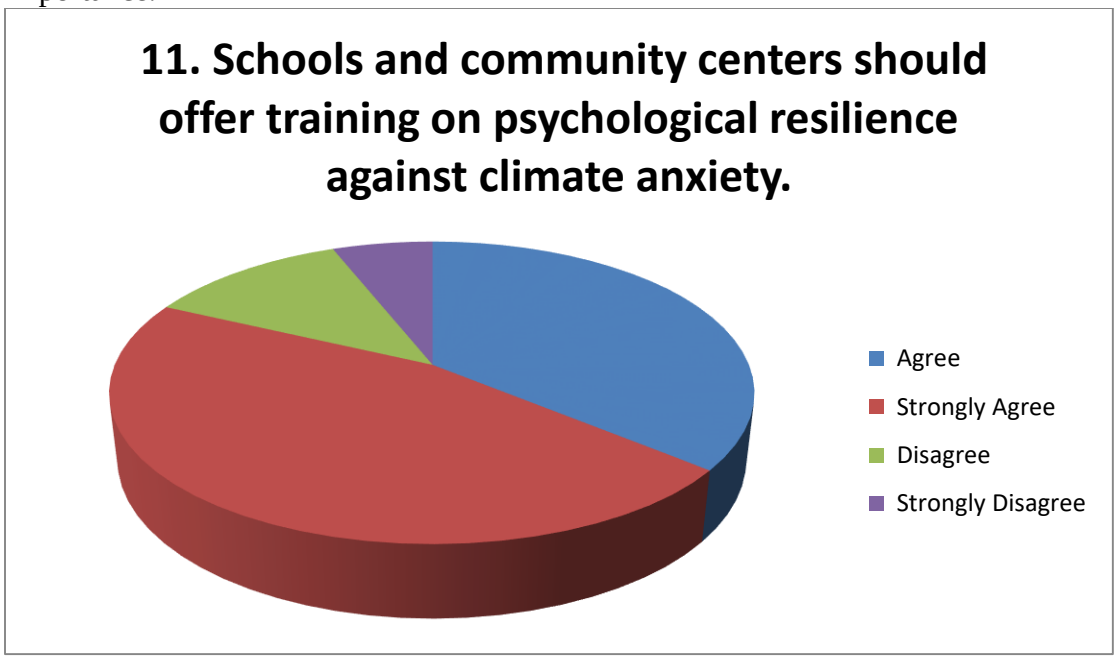
Discussion: The study reveals a shocking data that most of the people who are affected by climate geological disasters influencing their mental health as termed as Eco-Anxiety in the hazards prone areas are not aware of any programs or resources that help youth cope with Eco-Anxiety or climate related stress.



Discussion: People are willing and interested to participate in mental health workshops or training focused on coping with environmental stress while few are not sure about this statement response and others responded as may be while some were found reluctant and responded as no.



Discussion: Using likert rating scale it is concluded that people believe that integral mental health services into climate change response and disaster relief programs are very important for Geo-Climate and Eco-Anxiety nexus. Others consider as important and some consider this as less important while few consider is of no importance.



Discussion: Especially in Hazards prone areas of climate geology and Eco-Anxiety nexus; this study found that majority of respondents strongly agrees that schools and community centers should offer trainings on psychological resilience against climate anxiety.

Findings

1. Prevalence of Eco-Anxiety: Most of the youth participants experiencing worry, helplessness, and fear regarding climate caused geological change in their respective areas.

2. Exposure to Climate Events: Most of the samples experienced environmental risks directly or indirectly through floods, landslides, or droughts, and this is correlated with the eco-anxiety.
3. Media Influence: The majority of respondents faced climate change related media content on a regular basis, and such exposure is correlated with enlarger environmental concerns and anxiety among young people.
4. Demographic Variations: Female respondents and those residing in highly vulnerable areas to climate related disasters showed more intense psychological distress than males and adolescents from lower risk zones.
5. Coping Awareness: Although the prevalence of eco-anxiety is high, relatively few adolescents reported knowing strategies or sources for dealing with climate related psychological distress, reflecting a lack of mental health awareness and resources.

Conclusions

It is concluded in the study that climatic induced geological alterations have a tangible and positive effect on the mental well-being of young people in Pakistan's disaster prone regions. Combination of environmental hazards with repeated exposure to media results in an increase in eco-anxiety, which impacts the emotional well-being of youngsters.

The study finds out that some groups, manly females and those living in dangerous areas, face mental health issues. There is an urgent need to deal with the psychological issues of climate change through action that are specifically affected.

Also, the poor level of awareness regarding coping mechanisms for eco-anxiety points to the urgent need for educational and support programs to youth living in impacted areas.

Recommendations

1. Include Mental Health in Climate Adaptation: Mental health support clearly included in climate policies to enable young people to develop psychological resilience against environmental stressors.
2. Institute Youth Oriented Support Programs: Schools, community centers, and local organizations need to implement programs that told young people about eco-anxiety and guide them in effective coping and resilience techniques.
3. Promote Equitable Media Coverage: Media platform report on climate matters responsibly and clearly to educate the public while limiting fear and anxiety.
4. Enhance Access to Mental Health Services: Mental health services with expertise in environmental and climate distress provided, especially in isolated and difficult areas.
5. Encourage Additional Research: These studies track trends in eco-anxiety and assess the effectiveness of intervention programs to assist youth mental health amidship climate change and the implications for their future well-being. It highlights how the increasing severity of climate related events can lead to heightened anxiety,and depression.

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