

High School Student's Views and Perception about Climate Change

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ABSTRACT

Climate change is a global problem, and it has negative effects on people in different ways. The purpose of this research is to investigate Dur Baba distract high school students' views and perceptions about climate change and its negative effects, 2023. There are three high schools with a total population of 4000 students in Dur Baba district. Based on the Cochran formula, 351 participants were selected. Data were collected by the researchers, who prepared a questionnaire with a systematic random sampling method. There were 117 students from each high school and 39 participants from each class (10th, 11th and 12th). The participants were between the ages of 15 and 21 years old. The collected data were transferred to the SPSS 24 version and analyzed by the descriptive statistic method, and the reliability of the questionnaire was checked ($\alpha = 0.79$). The results of this study shows that the majority of high school students know about climate change and its negative effects, as most of them are worried and view climate change as affecting their lives and academic developments. Dur Baba distract high school students have higher knowledge about climate change events, and they know that climate change causes more financial, personal, social and academic damages in life.

Keywords: Psychological anxiety, climate change, cognitive-emotion, impairment, functional impairment

INTRODUCTION

Climate change is one of the universal environmental threats. It is primarily caused by unmanageable human activities, such as ecosystem degradation, deforestation, loss and depletion of biodiversity, and economies that are dependent on fossil fuels, leading to food and water insecurity, rivers and oceans, air pollution and contamination of land. All of these have a computable adverse influence on the physical and mental health of humans (Charlton et al., 2021). The shift in climatic conditions threatens the viability of the planet's ecosystems, as well as the future of humanity and the constancy of the global economy. Natural internal climate system processes, as well as external, natural or human effects, can all contribute to climate change (external variability). Later, natural human effects are the primary causes of climate change (Buba, 2004). Human factors such as urbanization, deforestation, population growth, development, and greenhouse gas production have been known as key contributors to the increase in the quantity of carbon dioxide, which has changed the composition of the climatic conditions in recent times (Odjugo, 2009). Global Climate change continues to have physical, economic, health and social influences that need extension and adaptation (Di Giusto and Lavelle, 2018). The load climate change puts on today's society is great and needs a group of strong-willed, hardy people to take on a huge existential challenge. Younger generations are more likely to carry this burden and can be the ones to spur long-lasting action campaigns. They are the generations who are getting a climate-changed world that puts the idea of a steady future at risk and increases adolescent stress, anxiety, grief. Well-preparedness is an essential aspect of the environmental movement that is often overlooked (Ray, 2018). Climate change is progressively having stronger and longer-lasting impacts on societies, which can directly and indirectly affect people's mental health (Clayton & Manning, 2018). Trauma, concern, panic, worry and depression may be the short- or long-term assets of climate change (Cianconi, 2020).

Numerous people had low awareness of their contribution to climate change (Whitmarsh et al., 2011). Further, in most cases, the issue is seen as immaterial to the public, who detect that the government should be responsible for addressing climate change (Spence et al., 2012). Climate change is an international phenomenon that affects many people around the world. There is not any research performed related to climate change among high school students in Afghanistan. Afghanistan is a developing country with a weak economy, which restricts its ability to successfully fight the effects of climate change such as snowfall, drought, floods, forest fires, and

glaciers. Therefore, the purpose of this study is to investigate the high school students' views and perceptions about climate change and its effects.

MATERIALS AND METHODS

Study Area and Samples Collection

Participants of this study included all students of high schools in Nangarhar province, Dur Baba district, in 2023. There are three high schools (shulgar, shamshad and Central) with a total (4000) population of students in Dur Baba district. Based on the Cochran formula, 351 participants were selected. Data were collected by the researcher's prepared questionnaire with a systematic random sampling method in five days (December 15–20). 117 students from each high school and 39 participants from each class (10th, 11th and 12th). Prior to the data collection, the required authorizations were obtained from the Education Department. Then, referring to each school, the researchers clarified the study objectives to participants and guaranteed them that the data collected would be kept confidential, and if anyone wanted to withdraw from the study, they could anytime. The demographic result shows that a total of 351 participants in this study were between 15 and 21 years old. According to their economic status, 82 participants had a lower, 227 had a medium, and 42 had a high economic status.

Measurement tools

A questionnaire was used to collect data quantitatively. This questionnaire was created and arranged by the researchers with the help of previous research. This questionnaire had two parts. The first part required Demographic information such as, age, grade and economic status. The second part required information related to study objectives with 17 questions. The three questions are arranged with three (Yes, No, I Do not know) response options; the four questions required multiple responses (e.g., where did you get information about climate change? With options such as family, friends, school, social media, and news. Ten questions are designed on a five-point Likert scale, with response options ranging from 1 = Never to 5 = always, which focuses on negative emotions regarding climate change. Reliability of this question was good ($\alpha = .79$ in this study).

Statistical Analysis

The collected data were transferred to the SPSS 24 version for analysis through Cranach's alpha. The descriptive statistic method (percentage, number) was used and reported in tables and graphs.

RESULTS

Table 1. shows number and percentage of participants views related to climate change.

questions	options	Number	Percent
Do you think the climate is changing?	Yes	346	98.6
	No	3	0.9
	I don't kwon	2	0.6
Are you aware of country's climate change events?	Yes	260	74.1
	No	80	22.8
	I don't kwon	11	3.1
Aer you concerned about climate change?	Very	263	74.9
	Little	74	21.1
	None	14	4

The first table clearly shows that almost all (98.6%) participants believe of climate is changing, and the majority (74.1%) of them are aware of the country's climate events and are concerned about climate change.

The first figure clearly shows that majority (72.5) of students got knowledge about climate change in school.

The second figure indicates that high school students (43%) are worried about earthquakes, droughts (31.9%) from drought and less than 10 percent from heat, cold winds and floods.

The third figure reveals majority (30.9) students feel sad and worry and minority less than (10%) of them feel strong, pessimistic and sinful about climate change.

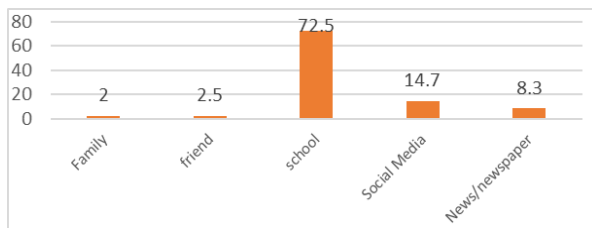


Figure 1. Shows participants percentage of getting information about climate change.

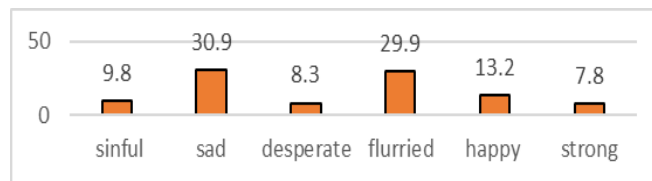


Figure 3. shows participants feeling percentage about climate change..

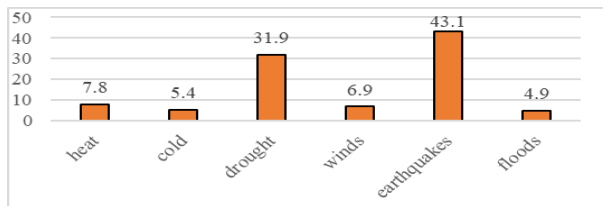


Figure 2. Shows the percentage of respondents concerned about climate change.

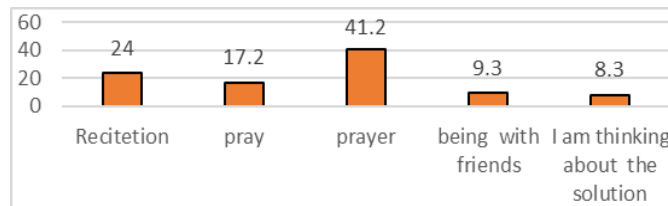


Figure 4. Shows participants Copping percentages of climate change.

Information mentioned in Figure 4 clearly shows participants (41.2%) praying, reciting the holy Quran, and less than 10%) thinking about the solution to climate change events and being with friends.

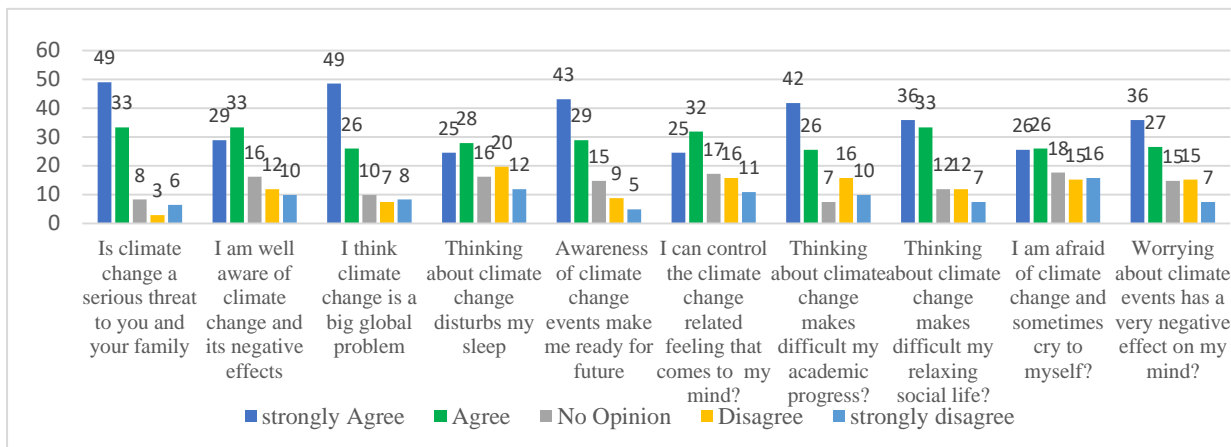


Figure 5. shows participants views and perception percentages about climate change negative impacts.

In the fifth figure, participants highly about (80%) view climate change as a huge global problem and a serious threat to themselves and their families. The majority of the participants (67.3%) believe that climate change negatively affects social life and academic development. 52.2%) said thinking about climate change disturbs their sleep. Interestingly, more than half of the participants (56.4%) believe that they can control their emotions during climate disasters.

DISCUSSION

The results of this research shows that High school students in Dur Baba almost all know that the climate is changing. Mostly, they have gotten climate change-related information from school. This finding is supported by (Bostwick, 2021). As climate change events such as hot and cold weather, floods, earthquakes, storms, etc. are happening and almost visible every year, these are the main reasons the participants know about climate

change. In addition, another reason could be that the geography subject has been taught in school formally. The results of this research shows that High school students in Dur Baba almost all know that the climate is changing. Mostly, they have gotten climate change-related information from school. The results of this study also show that nearly all high school students are very worried about climate change, and they believe it is a serious threat for themselves and for their families. This finding is similar with (Di Giusto and Lavelle, 2018). The reason might be that great adversity happened recently in Afghanistan, due to earthquakes and floods. Many houses and land were destroyed, and many people died. This is not only the case in Afghanistan; as participants in this study, we know that climate change is a global problem. The participants in this study said that climate events had a negative impact on their mental health. Which is similar to (Clayton & Manning, 2018). As extreme weather conditions can exacerbate mental disorders such as depression and generalized anxiety. As climate change events happen suddenly, which is uncontrollable, high school students might be anxious about their negative impacts and unknown future. There are several limitations to this study. First, this study was conducted only with male students at Dur Baba High District School, so the reader must consider the female students and other districts male students as well. Second, it is only a quantitative study; the result of a qualitative study must be considered. Third, the participants of this study might not have been representative of the whole of Afghanistan, even the Nangarhar population. Thus, it would be helpful if other studies were conducted to fulfill the limitations of this study and compare the results for a better understanding of psychological anxiety about climate change.

CONCLUSION

Dur Baba distract high school students have higher knowledge about climate change events, and they know that climate change causes more financial and personal damage in life, so they were more worried, and in their view, it has negatively affected their social and academic lives.

CONFLICT OF INTEREST: All authors express no conflict of interest in any part of the research.

AUTHORS CONTRIBUTIONS: HH: supervising, conceptualization, methodology, investigation, formal analysis, review and editing, visualization: DD: resources, original draft preparation, review and editing, visualization.

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