

Relationship between Eco Anxiety and Coping Strategies among Youth

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Abstract

The aim of the current study was to investigate the relationship between Eco Anxiety and Coping Strategies among youth. The other purpose of the study is to find out the gender difference on Eco Anxiety and Coping Strategies among youth. Total number of participants was 250 in which 40 were included in pilot study while 210 were approached for main study. The convenient method of sampling was used for data collection. The instruments used in the study were Hogg Eco Anxiety Scale (HEAS) and Brief Resilient Coping Scale (BRCS). Written permission through email was taken from authors before using the scales for assessing the variables. The data was collected through two phases; In phase I data was collected from 40 university students for pilot study for the purpose to check the internal consistency of the study instruments. The reliability of the Hogg Eco Anxiety Scale (HEAS) in pilot study was in acceptable range although the reliability of Brief Resilient Coping Scale (BRCS) was low and the correlation was insignificant in the pilot study but improved in the main study. For data analysis the SPSS version 21 was used. Pearson product moment correlation and t-test was applied to check whether the hypothesis were supported or not. The first hypothesis was that there will be significant negative correlation between Eco Anxiety and Coping Strategies. The second hypothesis was that Male will be more vulnerable to eco anxiety than female among youth and the third hypothesis was that Female will be high on coping strategies than male among youth. The results show that there is a significant negative correlation between eco-anxiety and coping strategies. This supports the first hypothesis of the study. The conclusion from t-test analysis shows that male score high on Eco Anxiety scale but the difference is not significant while the other finding is that there is no significant gender difference on coping strategies which indicate that male and female are equal in adapting coping strategies.

Key words: Eco Anxiety, Coping Strategies, Resilience

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Introduction

Eco-anxiety has emerged as a significant mental health concern in response to the rapid progression of climate change and widespread environmental degradation. As individuals become increasingly aware of issues such as global warming, extreme weather events, biodiversity loss, and other ecological threats, they are more likely to experience heightened levels of anxiety, fear, and feelings of helplessness (Moratis & Melissen, 2022). Furthermore, Research suggests that eco-anxiety affects individuals across the lifespan, including children, adolescents, adults, and older adults. However, younger people appear to experience particularly high levels of environmental anxiety, largely because of growing uncertainty and concern about the future of the planet. As noted by Chou et al. (2023), this heightened distress is closely linked to worries about the long-term consequences of environmental change.

The American psychology association APA (2017) describes eco-anxiety as the chronic fear of environmental cataclysm that comes from observing the seemingly irrevocable impact of climate change and the associated concern for one's future and that of next generations. Pihkala (2020) suggest that eco anxiety are manifested through a series of emotional states such as pessimistic attitude and feelings of handicapping and there is a strong link between anxiety due to climate change and emotional expression of people. It is also assumed that crises due to any negative changes in climate or environment can create anxiety in individual at both conscious and unconscious level, sometimes the person are fully aware that the cause of anxiety is ecological crisis but most of the times the person feel anxious but confused about the main reason or hesitate to acknowledge that anxiety is caused due to change in climate.

The impact of climate change is varied, it depends on the life style and vulnerabilities of people living in specific area such as the people whose professions are associated with climate are more vulnerable to any change in environment as compared to those whose life means are not linked with environmental change, thus the emotional reaction of people are also different as high emotional rate indicate high vulnerability rate and vice versa (cunsolo et al. 2013). Additionally, there are several types of distresses related to change in climate such as "eco-anxiety, eco-paralysis, solastalgia and eco- nostalgia", analytical theory of Sigmund Freud describes eco anxiety as the condition of fear and dissatisfaction which appear when person become aware that environment is in danger. Eco-anxiety is a state of impairment caused by a condition of severe stress that increases day by day, leading to fear when

anticipating the coming future, and all this is due to alterations in the natural climate (Clayton, 2021).

The role of psychology and psychologists in eco-anxiety has been specified in six domains, as presented by the American Psychological Association (APA) in its 2010 report. It describes the efforts made by psychologists, the hurdles posed by society, the etiology of environmental change in the context of internal and external factors, how ecological crises impact the mental health and social lives of people, the prediction and assessment of hazards, and finally, the methods or mechanisms that help individuals cope with eco-anxiety.

The American Psychological Association (APA, 2018) describes coping strategies as the thoughts and behaviors people use to deal with stressful or difficult situations. These strategies also help individuals regulate their emotional responses to stress. In general, coping involves conscious and purposeful efforts to manage challenges effectively.

Coping includes both behavioral actions and internal psychological processes that enable individuals to handle the demands of stressful experiences. Research has shown that effective coping plays an important role in protecting mental and physical health and is considered a key focus of psychological interventions (Taylor et al., 1983) this definition include the practical action in coping as well as the internal forces. Folkman (1980) defines coping strategies as cognitive and behavioral tactics that people use to manage situations that are perceived as distressing. So cognitive refers to thinking pattern and behavior means any visible activities. A coping strategy refers to the ways individuals respond to stress while dealing with the challenges and demands of everyday life. (Skinner et al., 1938). It included all the ways through which an individual deal with and manage stress.

There are six types of coping techniques which are used for dealing with anxiety arise from knowledge of environmental crisis. First one is “planning” that is about decide what to do in stressful situation, second is to “confront” themselves as well as other to take measures and Steps that will benefit for environment. Positive reframing includes the restructuring of mind set and concentrate on positive points of any climate change is the third coping strategy, the fourth one is “acceptance of whatever happening in the environment. The “problem avoidance” involves the voluntary actions just to keep ourselves away from any update regarding environmental crisis. The last type is seeking help from society through feelings of warmth and societal approval (lefcourt 1991).

The coping strategies for eco-anxiety cannot completely eliminate the symptoms. Although they can reduce distress and functional impairment. One strategy is to be realistic and aware of what is happening in the climate. But not let these updates ruin your present. If a person feels disturbing and irritating thoughts and feelings regarding alterations in the climate, they should acknowledge them and not try to reject them. Another effective way is to determine which type of help you can provide to minimize the adverse impacts of changes on society. And thus balance anxiety through helping others cope with their stress (Ebi, 2021). The first type of coping strategy involves taking steps to deal with issues that a person believes may cause distress. In contrast, the second type focuses on managing overwhelmed emotions triggered by an issue. While solving a problem can automatically alleviate or reduce adverse feelings, it is not always possible to resolve the issue immediately. In such cases, individuals can adjust mentally and adopt measures to facilitate coping (sonthalia, 2023).

Many studies explained that there are some factors such as the “age group, sex and economic class” specifically and generally many more which highly affect the severity and existence of eco anxiety. Pihkala (2022) defined the factor of age that due to future predictions and their outcomes the teenager experiences more eco anxiety as compared to older adults. This is also claimed that females are more sensitive to climate crisis than male and evidence showed that more interaction with society and sensitive nature are the main reasons (Canady et al., 2011) People who are from middle class or lower class feel more vulnerable and victims to the ecological threats than upper class as they have enough resources to deal with it. Thus, it is also obvious that relationship between eco anxiety and coping strategies are depends on person income and level of qualification.

Wang et al. (2023) conducted their study on ecological crisis and eco anxiety. They describe Eco anxiety as those which are manifested in the form of negative troublesome and automatic physiological, cognitive and emotional response to climate change. Along with diagnosing the symptoms of eco -anxiety, this study provides some coping mechanism as well such as; framing of motivational message, storytelling for social and behavioral change. Sharing of knowledge, positive deviance for solving complex problem.

Kovary et al. (2022) conducted a study for assessing eco anxiety, eco guilt in a population which are sensitive to climate change. The eco anxiety affects the mental health of people directly or through indirect way. The direct way is the experience of environmental traumas while the stressful thoughts about future are the indirect way of eco anxiety. The semi

structured interview was used as a method. The result shown six components of eco anxiety, in response to six types of eco anxiety, the six categories of coping mechanism were identified for the purpose to comprehend the emotions related to climate change.

Objectives

1. To examine the relationship between eco-anxiety and coping strategies among youth.
2. To investigate the gender differences between male and female on eco anxiety among youth.
3. To investigate the gender differences between male and female on coping strategies among youth.

Hypotheses

1. It is hypothesized that there will be significant negative correlation between eco anxiety and coping strategies.
2. It is assumed that Male will be more vulnerable to eco anxiety than female among youth.
3. Female will be high on coping strategies than male among youth.

Sample

Participants in this study were from Mardan and Swat districts and sample size included (N=250) both male and female in equal numbers, age range between 18 to 23 years. The sampling technique of the research is non random sampling (Convenience Sampling).

Instrument

Two scales of high validity and reliability will be used for conducting this research

1. Demographic sheet
2. Hogg eco anxiety scale (2019).
3. Brief resilient coping scale (2004).

Demographic sheet

The demographic sheet was attached to the scales which contained information on gender, age, education and area to which the participants belonged.

Hogg Eco Anxiety Scale

The HEAS was developed by Matthew Hogg (2019) consist of 13 items on 4-point Likert scale from 0=not at all to 3=very much. The result will find after sum of all the responses on each time. The score greater than 20 will shows high level of eco anxiety. The validity of the scale is 0.85 while the reliability is ranging from 0.88 to 0.92.

Brief Resilient Coping Scale

The BRCS was adopted by Virginia G. Sinclair and Kenneth A. Wallston at 2004. It consist of 4 items on 5-point likert scale from (1=not at all to 5=nearly always). The total score is 20, the person who score less than 14 will be consider low resilient copper. The reliability of the scale is ranging from 0.80 to 0.85.

Procedure

Total 250 data were collected for main study and the data contains equal number of male and female students (125were male while 125 were female). The data was collected from different universities of Mardan and Swat. The Google form of questionnaire was also administered to ensure quick data collection. Instructions were provided for understanding of complex terms used in questionnaire. The informed consent was taken with the assurance that their data will never be disclosed at any cost. The data was analyzed through statistical package for social sciences (SPSS version 21) after collection.

Table 1

Details of sample characteristics for main study (N=250)

Sample	categories	f	%
Gender	Male	125	50
	Female	125	50
Education	undergraduate	234	93.3
	Intermediate	16	6.4
Region	Mardan	161	64.4
	Swat	56	22.4
	Other	33	13.2
Age	18-19	38	15.2
	20-21	95	38
	22-23	117	46.8

Above table shows that 161(64.4%) students were from Mardan, 56(22.4%) were from Swat while 33(13.2%) were from other areas. If we look at the ratio with respect to education most of the students were those who are under graduation that are 234(93.3%) while some are from intermediate i.e 16(6.4%). The large number of population was from age range of 22-23 that is 117(46.8%), the number of participants from 20-21 were 95(38%), while a smaller number of participants were from age range of 18-19 that is 38(15.2%).

Internal consistency of the study instruments

Internal consistency of the instruments was measured using Cronbach's alpha Coefficient. The reliability of one scale in the pilot study was low, now in the main study it is

improved while the reliability of another scale was appropriate only in the pilot study and now in the main study it is higher.

Table 2

Alpha Coefficient for Study Variables (N=250)

Scales	No of items	α
1. HEAS	13	.81
2. BRCS	4	.70

Note. HEAS=Hogg Eco Anxiety Scale; BRCS=Brief Resilient Coping Scale.

Table shows internal consistency of the study instruments are appropriate and in acceptable range.

Descriptive statistics for study variables(N=250)

Table 3

Descriptive statistics for study variables

Scales	M	SD	Skewness	kurtosis
HEAS	15.15	7.40	.38	-.51
BRCS	12.70	3.42	-.29	-.59

Note that HEAS= Hogg Eco Anxiety Scale; BRCS=Brief Resilient Coping Scale; M=Mean; SD=Standard.

Table 4

Pearson Product Moment Correlation between Eco Anxiety and Coping Strategies (N=250)

Variables	1	2
Eco Anxiety	-	-
Coping Strategies	-.22**	-

Table 4 shows negative and significant correlation among Eco Anxiety and coping strategies thus the hypothesis I is supported.

Gender differences on Eco Anxiety and Coping Strategies

Table 5

Independent sample t-test for Eco Anxiety and Coping Strategies (N=250).

N=250	Females (n=125)		Males (n=125)		95%CI			
Variables	M	SD	M	SD	t	P	LL	UL
EA	14.70	7.00	15.59	7.79	.94	.112	.92	.73
CS	12.69	3.13	12.72	3.70	.07	.035	-.82	.88

Note. EA is Eco Anxiety, CS= Coping Strategies, M=Mean, SD= Standard deviation, LL= Lower Limit, UL= Upper Limit, CI= Confidence Interval.

Table 5 shows that male scored higher on HEAS than female which support the hypothesis that male experience Eco Anxiety more than female although it is not significant. It also showed that there is no gender difference on Coping Strategies.

Discussion

The aim of the study was to find out the correlation between Eco Anxiety and Coping Strategies as well as to check whether there is gender difference exist or not on Eco Anxiety and Coping Strategies among university student. In order to measure the variables, the Hogg Eco Anxiety scale (HEAS) developed by (Hogg, 2019) was used to assess Eco Anxiety while the Brief Resilient Coping Scale developed by (Sinclair & Wallston, 2004) to measure Coping strategies. The data collection was done in two phases, phase I for pilot study while phase II includes Main study. The pilot study includes 40 students' equal size of male and female (i.e 20 each). The written permission through email were taken from authors of scales before using it in study. The age range of the participant in pilot study was from 18 to 23 years. The education level of the participants was mostly undergraduate student. After data collection it was analyzed through SPSS version 21. In pilot study, the reliability of the Hogg Eco Anxiety scale (HEAS) developed by (Hogg, 2019) was in acceptable range but the reliability of the Brief Resilient Coping Scale developed by (Sinclair & Wallston, 2004) was very low, the reason may be small sample size or a smaller number of items but it improved in the main study. The Pearson product moment correlation shows positive correlation although the hypothesis was not supported in pilot study but it is supported in main study. To find the gender differences, the independent sample t-test was applied on eco-anxiety and coping strategies. The results show that there are significant gender differences.

The main study was based on data collected from 210 university students using the purposive sampling method. The participants included 105 males (50%) and 105 females (50%) aged between 18 and 23 years. Most participants were undergraduate students, totaling 234, while very few students were from intermediate level, totaling 16. A large number of participants were from Mardan, totaling 161, while 133 were from Swat, and 56 were from other cities in Pakistan. The reliabilities of both scales were satisfactory in the main study. The reliability of the HEAS was 0.81, while the reliability of the BRCS was 0.70, both within the acceptable range. The results from the Pearson Product Moment correlation indicate that there is a significant negative correlation between eco-anxiety and coping strategies. This supports

the first hypothesis of the study, which stated that there is a significant negative correlation between eco-anxiety and coping strategies. Therefore, the results prove this hypothesis.

The second hypothesis was that “Male will be more vulnerable to Eco Anxiety than female due to the more exposure to the environmental changes and ecological crisis but results from independence sample t-test shows that there is no significant gender differences on Eco Anxiety among male and female, although male scores on Hogg Eco Anxiety Scale slightly higher than female which partially support the hypothesis but the difference is not significant. Thus, the hypothesis didn’t support. The same results were also shows in the study conducted by Gago et.al (2023) which indicates that there is no significant gender difference on Eco Anxiety and the male and female are equally vulnerable to Eco Anxiety.

The third hypothesis was that females would score higher on coping strategies than males among youth. The results from the t-test analysis show that there are no significant gender differences in coping strategies, specifically brief resilience coping scale, which rejects this hypothesis. The same result was derived from a study conducted by Hamilton et al (1988) which also found no significant gender differences in coping strategies. The same result was also shown in a study conducted by Melendz et al (2012) which reported similar findings.

Conclusions

The conclusion drawn from the current study shows that there is significant negative correlation between Eco Anxiety and Coping Strategies. The other findings show that male scores slightly higher on Eco Anxiety Scale although the difference is not significant. It is also concluded from the study that there is no significant gender differences on coping strategies among youth of Mardan.

Implications

The current study has many implications. Theoretically it is an important contribution to the literature that are already exist on the topic of Eco Anxiety and Coping Strategies. Practically it can help media to raise awareness regarding how to recognize Eco Anxiety with the help of sign and symptoms as well as it acknowledges the counselor to help their client who seek strategies and adaptive behavior as well as it help people to learn coping methods. Clinically this study is important as it explore ideas and mechanism which help people to reduce their anxieties specifically climate anxiety.

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