

Environmental anxiety and its impact on the mental health of the individual

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Abstract. In this study, "environmental anxiety" refers to a state of anxiety and tension that arises as a result of concern about the state of the environment and its impact on human health and safety. Psychological distress can be caused by various factors, such as stressful situations, genetic characteristics, neurochemical imbalances, psychological factors, traumatic events, chronic diseases, drug and alcohol use, as well as sociocultural influences. The main forms of environmental anxiety include: fear of environmental problems, disturbing thoughts, concern about possible health effects, hypersensitivity syndrome to environmental factors, anxiety in connection with environmental crises, social anxiety due to environmental aspects, anxiety due to news and media. These forms of anxiety can manifest in different symptoms and manifest at different levels of the personality: physical manifestations, psychological reactions, emotional manifestations, behavioral changes and physiological reactions. The possibility of developing environmental anxiety in the context of environmental issues can be explained by various psychological mechanisms, such as a perceptual filter, catastrophic thinking, a sense of security, social influence, a sense of loss of control and uncertainty, as well as psychosomatic reactions. The publication also provides various psychological approaches and methods aimed at reducing the level of environmental anxiety, such as psychological counseling, cognitive-behavioral therapy, meditation and mindfulness, exposure therapy, stress management, journaling, healthy lifestyle, outdoor recreation, positive perception and understanding of environmental aspects.

1 Environmental anxiety and its impact on mental health in Ukraine.

In recent years, concern about changes in the natural environment has increased significantly among the global population. Air and water pollution, climate change, the depletion of natural resources and the threat of species extinction are becoming increasingly apparent. This growing environmental anxiety can have a significant impact on an individual's mental health. The theme of environmental anxiety in Ukraine is gaining particular relevance due to the Chernobyl nuclear power plant disaster that took place in 1986 and in connection with Russian aggression.

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The consequences of aggression are catastrophic - the disruption of natural ecosystems, the pollution of land and water resources, the reduction of biodiversity and the spread of pests in forests - these are just a few examples of the serious environmental problems that Ukraine faces as a result of military conflicts and will have to deal with after their end. In addition, as a result of the aggression, the Kakhovskaya HPP was destroyed, and the Zaporizhzhya NPP was captured by the Russian military and may become the target of terrorist attacks. All this definitely affects the mental health of Ukrainians. Psychological anxiety has become one of the most common mental problems in modern society. The World Health Organization emphasizes that anxiety disorders are the second most common class of mental disorders, and they affect millions of people worldwide. This situation leads to deterioration of mental health, quality of life, increases the risk of developing other mental and physical diseases, and requires high costs for medical care and psychotherapeutic support.

2 Scientific discourse on the study of environmental anxiety and its impact on the mental health of an individual.

The problem of environmental anxiety and its influence on the mental health of the individual was dealt with by various scientists. I. Boluda-Verdu, M. Senent-Valero, M. Casas-Scolano, A. Matihasevich, M. Pastor-Valero consider the meaning of the concept of "ecological anxiety" and understand it as an emotional reaction of people to concern, worry, anxiety and fear of global threats, such as climate change and related environmental degradation [1]. H. Albrecht concentrates his scientific focus on "psychotherapeutic" influences that arise due to negative feelings and perception of environmental changes. The author presents a typology of emergent psychotic syndromes and conditions to help understand chronic environmental changes and possible responses to them [2].

In their study, researchers S. Clayton and B. Karazsia focus on negative emotional reactions that arise when they become aware of climate change. They used factor analysis and found a four-factor structure in which the following unique factors were identified: cognitive-emotional impairment, functional impairment, behavioral activity, and experience. Cognitive-emotional impairment and functional impairment were considered as subscales of anxiety related to climate change. These aspects were related to experience and caused negative emotions. However, anxiety about climate change, general depression, and anxiety in general were not correlated with behavioral engagement. In general, scientists conclude that concern about climate change is quite widespread, especially among young people. According to scientists, this concern may differ from more serious impacts on a person's life, and anxiety about climate change has a positive correlation with an emotional response, but not a behavioral one [3]. D. Duggal reveals the essence of the concept of "eco-anxiety", and understands it as a significant concern about the present and future damage to the environment, which is caused by human actions and climate change [4]. A. O'Brien., and A. Elders claim that anxiety related to climate change is accompanied by general symptoms of anxiety disorders, such as personal discomfort, fixation on the problem, sleep disturbances, physical manifestations, negative emotions and feelings of hopelessness [5]. E. Sundblad, A. Biel, T. Garling conducted a regression analysis and found that both cognitive risk assessments (probability of serious negative consequences) and emotional risk assessments (concern) were predicted by understanding the causes and consequences of climate change, in particular, its impact on health. Women were more worried than men, but did not differ from them in cognitive risk assessment [6].

In general, it can be noted that despite the diversity of research, there is no single systematic approach to environmental anxiety and its impact on the mental health of an individual. Therefore, this study will try to fill this scientific gap.

3 The importance of mental health for general well-being.

An important aspect for revealing the essence of environmental anxiety and its impact on the mental health of the individual is the mental health of the individual.

The mental health of an individual plays an extremely important role in the overall well-being of society and of each individual. The importance of mental health for general well-being can be emphasized by the following aspects:

1. **Quality of life:** Mental health affects the quality of life of every individual. When individuals have stable mental health, they usually perceive their lives as more satisfying and grateful.
2. **Productivity and work efficiency:** Mentally healthy individuals have more energy and motivation to achieve their goals. They are usually more productive at work and in school, which contributes to economic growth and the overall development of society.
3. **Adaptability:** Mental health makes people more resilient to the stresses and difficulties they may face in life. It promotes the ability to adapt to change and resolve conflicts.
4. **Interpersonal relationships:** Mental health promotes healthy and positive interpersonal relationships. Individuals with stable mental health usually have better relationships with family, friends and colleagues.
5. **Health of the physical body:** Mental health interacts with physical health. A stable mind promotes healthy habits, such as regular physical activity and a balanced diet.
6. **Fight against stigma:** Maintaining and improving mental health helps to reduce the stigma associated with mental disorders and problems. This makes society more accepting and supportive of people seeking help.
7. **Social stability and security:** An individual's mental health affects social stability and the overall security of society. The absence of mental disorders and anxiety contributes to the reduction of conflicts and social problems.

In general, mental health is an important factor affecting physical health, development, relationships and quality of life. Investing in mental health and psychological support improves the overall well-being of society.

To understand the essential aspect of environmental anxiety, it is logical to define this concept. To date, there is no single definition of the concept of "environmental anxiety". In this publication, environmental anxiety will be understood as a state of anxiety and tension that arises as a result of concern about the state of the environment and its impact on the health and safety of the individual. This anxiety can be caused by threats such as air or water pollution, natural disasters, climate change or loss of biodiversity.

4 Psychological factors of psychological anxiety

Psychological anxiety can be caused by various factors and can occur in various situations.

1. **Stressful situations.** Stress related to events that may be physically, emotionally, or psychologically difficult can cause anxiety. This can include job loss, family conflicts, financial difficulties, health events, etc.
2. **Genetic factors.** Heredity may play an important role in susceptibility to anxiety. If you have a family history of anxiety disorders, this may increase your risk of developing anxiety.
3. **Neurochemical imbalances.** Changes in the levels of brain chemicals such as serotonin can affect mood and contribute to anxiety.
4. **Psychological factors.** Some psychological factors, such as low self-esteem, perfectionism, fear of conflict, can lead to anxiety.
5. **Traumatic events.** Experiences of traumatic events, such as physical or sexual abuse, wars, natural disasters, can cause anxiety.
6. **Chronic diseases.** Some chronic diseases, such as heart disease, diabetes, can lead to

anxiety due to the fear of deteriorating health.

7. Use of drugs and alcohol. Drug and alcohol abuse can contribute to the development of anxiety disorders.

8. Sociocultural factors. Cultural and social influences, such as societal pressure, stigmatization, can lead to anxiety.

5 Environmental factors of psychological anxiety.

Since the construct of environmental anxiety also includes an ecological component, accordingly, the causes of environmental anxiety also include:

1. Environmental pollution. Pollution of air, water and soil by chemicals, industrial emissions and other pollutants can cause concern due to concerns about environmental quality and health effects.

2. Climatic changes. Climate change, such as global warming, sea level rise, and extreme weather events, can lead to anxiety because of the threat of changes in everyday life and future planning.

3. Loss of biodiversity. Biodiversity loss and species extinction can cause concern due to the understanding of the loss of natural resources and the destruction of ecosystems.

4. Other factors. Other possible causes of environmental anxiety are the lack of effective environmental protection measures, conflicts over access to natural resources, environmental disasters (for example, accidents at nuclear plants or oil spills), the psychological impact of mass media that talk about environmental problems, etc. These the reasons may vary depending on the region and individual characteristics, but in general they jointly lead to increased environmental anxiety among the population. In Ukrainian realities, war is one of these factors. According to the results of a study conducted among Ukrainians, the overall rate of anxiety is 57%. Relatively more often than others, women reported anxiety (64%), 61% of respondents from the West and East of Ukraine feel anxiety; men (50%), participants aged 18-35 (52%), respondents from Kyiv (50%) and South (52%) talked about anxiety relatively less often than others [7].

6 Forms of environmental anxiety.

Environmental anxiety can be expressed in various forms and manifestations, and it depends on individual characteristics and specific circumstances. Here are some of the main forms of environmental anxiety:

1. Environmental fear and anxious thoughts. This form of anxiety includes constant fears and anxious thoughts about environmental problems. People who suffer from this may constantly worry about climate change, environmental pollution and other environmental threats.

2. Environmental anxiety due to health threats. Individuals may experience anxiety due to fears for their own health and the health of their loved ones due to environmental risks such as water or food poisoning, radiation hazards, exposure to chemicals, etc.

3. Environmental anxiety in the form of environmental hypersensitivity syndrome (EHS). People with EHS experience extreme sensitivity to chemicals and the environment.

4. Anxiety due to environmental crises. Natural disasters such as floods, earthquakes, forest fires and other natural crises can cause anxiety in people due to threat to life and loss of property.

5. Social ecological anxiety. This form of anxiety arises from the social aspects of environmental problems, such as mass migration due to climate change, conflicts over access to natural resources, and other social consequences. Anxiety due to environmental news and media. Information about environmental crises, publication of research results, and news about natural disasters can increase anxiety and fear in people.

7 Symptoms and manifestations of environmental anxiety in the individual

These forms of environmental anxiety can manifest in different symptoms and manifest in different aspects at the individual level.

1. Physical symptoms:

- headaches. Individuals may experience tension and pain in the head, including headaches and migraines;
- muscle tension. Anxiety can cause muscle tension, back and neck pain;
- tremors and tremors. Nervous tension can lead to trembling of the hands or other parts of the body;
- sleep problems. Individuals may have persistent sleep problems, including restless sleep, more superficial sleep, or insomnia. According to the results of a sociological study among Ukrainians, the average level of self-assessment of physical condition by all respondents is 3.35 points. It was noted that 3% of respondents rated their condition by 1 point, 10% - by 2 points, 45% - by 3 points, 34% - by 4 points, and 8% - by 5 points [7].

2. Psychological symptoms:

- constant anxiety. Individuals may constantly experience anxiety and fears related to environmental problems;
- thoughts about certain threats. Focus on environmental threats and fears about the future;
- problems with concentration. Anxiety can make it difficult to concentrate and make decisions.

3. Emotional manifestations:

- fear and panic. Environmental anxiety can cause fear and even panic, especially during environmental crises and disasters;
- irritability and irritation. Individuals may become irritable and irritated more easily due to anxiety;
- depression and doubts. Environmental anxiety can cause feelings of depression, hopelessness and doubt about the future. Thus, according to the results of a sociological study among Ukrainians, 39% of respondents constantly or often feel lethargic or tired, as well as quick fatigue. 36% of people suffer from disturbed or interrupted sleep, and 35% feel anxiety or fear. Bad mood, excessive anxiety for various reasons, feeling tense or unable to relax, as well as failure to restore strength during rest and excessively early awakening are noted at the level of 31%. Again, 30% of people experience quick irritability or anger, and also have difficulty falling asleep [7];

4. Behavioral manifestations:

- avoidance. Individuals may avoid topics and situations related to environmental issues or try to isolate themselves;
- changes in lifestyle. Anxiety can lead to lifestyle changes, such as changes in diet or social activity.

5. Physiological reactions:

- Increased pulse and pressure. Stress-induced anxiety can lead to increased heart rate and blood pressure.
- changes in breathing. Rapid and shallow breathing can be a result of anxiety.
- other physiological reactions. These include sweating, dizziness, and other physical symptoms.

8 Manifestations of environmental anxiety in the context of psychological mechanisms

The development of anxiety in the context of environmental problems can be explained by

various psychological mechanisms.

1. **Perceptual filter.** Individuals experiencing environmental anxiety may tend to perceive the environment through the lens of threat. They may focus on the negative aspects of information about environmental issues, and this may increase their anxiety.
2. **Catastrophic thinking.** Individuals facing environmental problems may be prone to catastrophic thinking, that is, overestimating the risk and worsening the situation. They may feel that any environmental threat will necessarily lead to the worst consequences, even if this is not always objectively justified.
3. **Psychological feeling of security.** Environmental problems can undermine people's sense of security and control. This loss of sense of security can cause anxiety, as individuals may begin to experience fear of an unknown and unpredictable future.
4. **Social influence.** The social environment also plays an important role in the formation of anxiety. If others express anxiety or panic about environmental problems, this can influence individual anxiety reactions and cause social anxiety.
5. **Loss of control and uncertainty.** For example, climate change can lead to environmental crises that are difficult to predict and control. This uncertainty and sense of loss of control can lead to anxiety.
6. **Psychosomatic reactions.** Environmental anxiety can cause physical symptoms such as headaches, nausea, troubled breathing and heart palpitations. These physical reactions can exacerbate the anxiety itself.

Understanding these psychological mechanisms helps psychologists and therapists develop effective treatment and support strategies for individuals experiencing environmental anxiety. It is also important to emphasize the need for public education programs and communication that will help reduce the degree of anxiety and increase awareness of environmental problems and possible solutions.

9 Impact of environmental anxiety on various aspects of mental health

Environmental anxiety can affect different aspects of mental health, and this can manifest itself in different mental reactions and states.

1. **Perception of stress.** Environmental anxiety can increase vulnerability to stress. Individuals exposed to environmental threats may experience greater levels of general stress, which may lead to poorer mental health.
2. **Anxiety disorders.** Environmental anxiety can cause or exacerbate anxiety disorders such as generalized anxiety disorder (GAD), panic disorder, agoraphobia, and social phobia. These disorders are characterized by various symptoms of anxiety and can significantly impair the quality of life.
3. **Depression.** Environmental anxiety can also affect mental health, leading to the development or exacerbation of depression. The loss of reliability of the natural environment, the loss of property due to natural disasters and other environmental problems can cause a feeling of hopelessness and a difficult psychological state.
4. **Post-traumatic stress disorder (PTSD).** This disorder includes a range of symptoms such as recurring nightmares, hyperexcitability and psychological distress.
5. **Functioning in everyday life.** Environmental anxiety can impair an individual's ability to concentrate, make decisions, and perform everyday tasks. This can affect work efficiency and social relationships.
6. **Interactions and social isolation:** Environmental anxiety can lead to feelings of isolation and social isolation. Individuals may avoid social contact due to anxiety, which can worsen their mental health.
7. **Physical health.** Environmental anxiety can also affect physical health, causing poor sleep,

a lowered immune system, and other physical problems.

It is important to understand that the impact of environmental anxiety on mental health can be individual and vary depending on the degree of anxiety, the sociocultural context, and the presence of other risk factors. Support and psychological help can be important for individuals experiencing environmental anxiety to reduce its negative impact on their mental well-being.

10 The most vulnerable groups in terms of environmental anxiety

Certain groups of individuals may be particularly vulnerable to environmental anxiety due to various physical, psychological, and sociocultural factors. Here are some of these vulnerable groups:

1. Children and teenagers. Children and adolescents may be particularly vulnerable to environmental anxiety because of their immature nervous systems and limited experiences. They may have a harder time understanding and coping with fears and anxieties caused by environmental problems.
2. Persons with mental disorders. Individuals with mental disorders such as anxiety disorders, depression, or PTSD may be more prone to environmental anxiety reactions and may have more difficulty coping with them.
3. Persons with chronic diseases. Individuals with chronic conditions such as asthma, allergies, or other conditions that may be exacerbated by environmental degradation are particularly vulnerable to environmental anxiety.
4. Elderly persons. The elderly may be more vulnerable due to a low level of physical and psychological reserves, as well as a greater risk of health deterioration due to environmental problems.
5. Persons with a low income level. Low-income people may have fewer opportunities to protect themselves from environmental threats, and lack access to clean water and safe shelters.
6. Specialists working in the field of environmental protection. Paradoxically, those who work in the field of environmental protection and study environmental issues may also be vulnerable to environmental anxiety because of their heightened knowledge of the threats and irreversibility of some environmental problems.

These groups of individuals may need special attention and support in reducing the level of environmental anxiety and its consequences for mental health.

It is interesting to examine the issue of how Ukrainians tried to minimize the consequences of anxiety within the chosen issue. Among the main activities for reducing anxiety, the respondents included: communication with relatives/friends (including children) (53%), watching movies/series at home (43%), spending time on the Internet (YouTube, social networks, websites) (41%), walks in the fresh air (36%), listening to music (25%) [7].

11 General recommendations for reducing the level of environmental anxiety.

In this regard, it should be noted that reducing environmental anxiety may require psychological approaches and measures to improve the mental state of a person facing this problem. The following psychological approaches and measures to reduce environmental anxiety can be identified

1. Psychological consultations. You should contact a psychologist or psychotherapist for an individual consultation. A professional will help you understand the roots of anxiety and develop strategies to overcome it.

2. Group support. Join a support group for people who also experience environmental anxiety. Sharing experiences and supporting each other can be helpful.
3. Cognitive behavioral therapy (CBT). This type of therapy helps to develop new ways of thinking and reacting to stressful situations, to learn to manage your anxiety more effectively.
4. Meditation and mindfulness. Practicing meditation and mindfulness can help focus on the moment and reduce anxiety levels. These techniques allow you to calm the mind and emotions.
5. Exposure therapy. If the anxiety is related to specific fears about the environment, exposure therapy can help to get used to these situations and reduce the fears.
6. Stress management. Stress management techniques such as deep breathing, relaxation, physical activity, and self-regulation techniques should be learned. They will help you manage stress better.
7. Notation. It is possible to start keeping a journal in which to record your thoughts and feelings about environmental issues. This will allow you to vent your emotions and help you understand them better.
8. A healthy lifestyle. Maintaining a healthy lifestyle, including proper nutrition, physical activity, and regular sleep, can increase resistance to stress and anxiety.
9. Recreation in nature. You should spend more time in nature. Nature can have a relaxing effect and help relieve anxiety.
10. Positive perception and understanding of ecology. Ecology should be considered as an opportunity to more actively influence the improvement of the environment. Knowing that you can contribute to improving the situation can make you feel more resilient to anxiety.

These psychological interventions can help reduce levels of environmental anxiety and improve mental health. It is important to see a professional if your anxiety is significantly affecting your happiness and quality of life.

12 Psychological measures to reduce the level of environmental anxiety for different categories of people.

To reduce environmental anxiety among different categories of people, it is necessary to use psychological measures that correspond to their needs and capabilities.

1. Children and adolescents:
 - play and creativity. It is useful to use games and creative tasks for the development of children's environmental awareness.
 - stories and discussions. It is necessary to tell children about the importance of nature and the environment and to discuss environmental issues with them.
 - Walks in nature. Children should be encouraged to spend their free time in the fresh air.
2. Persons with mental disorders:
 - individual therapy: It is advisable to use individual psychotherapy sessions, taking into account the specific needs of each person.
 - coping strategies. Learning coping strategies to overcome anxiety and stress, with an emphasis on the specifics of environmental problems, is useful.
 - constant support. Constant support and communication with psychiatrists or psychologists should be ensured.
 - Persons with chronic diseases: action planning. People with chronic diseases should be helped to develop plans to manage their health in the event of environmental degradation;
 - stocks of medicines. It is recommended for this category of persons to have a stock of medicines with a reserve for extreme situations.
3. Elderly persons:
 - ensuring security. It is important to constantly remind them about safety measures during emergencies such as bad weather or an environmental accident.

- joint activities: Organize joint activities for senior groups that allow them to interact and support each other.

4. Persons with a low income level:

- access to resources. It is necessary to provide these individuals with access to information, resources and programs that will help reduce their environmental anxiety.

- community support. It is appropriate to develop programmatic initiatives to support and educate low-income groups.

5. Specialists in the field of environmental protection:

- psychological support. It is important to ensure the possibility for specialists to receive psychological support and counseling.

- exchange of experience. It is important to create specialized forums for sharing experiences and support.

For each of these categories of persons, it is important to consider their characteristics and needs when developing psychological measures to reduce environmental anxiety.

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