



“Climate Anxiety and Eco-Distress in a Changing World: Emerging Challenges and Strategic Roles for Mental Health Nurses”

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Abstract: Climate change has emerged as one of the most significant global challenges of the twenty-first century, affecting not only physical health and ecosystems but also psychological well-being. Increasing exposure to climate-related disasters, environmental degradation, biodiversity loss, and uncertainty regarding the future has contributed to the rise of climate anxiety and eco-distress among individuals and communities worldwide. Climate anxiety refers to chronic fear, worry, or apprehension regarding environmental catastrophe and the future consequences of climate change, while eco-distress encompasses broader emotional responses such as grief, sadness, anger, guilt, helplessness, and despair associated with ecological degradation. Although these reactions are often considered rational responses to environmental threats rather than psychiatric disorders, they can significantly impair mental health, daily functioning, and quality of life when persistent or overwhelming. Mental health nurses are increasingly encountering individuals experiencing psychological distress linked to environmental concerns, necessitating the development of specialized knowledge, assessment skills, and therapeutic interventions. This review explores the concepts of climate anxiety and eco-distress, their epidemiology, determinants, psychological manifestations, vulnerable populations, and implications for mental health nursing practice. The article also discusses evidence-based nursing interventions, resilience-building strategies, policy considerations, and future directions for nursing education and research. Strengthening the capacity of mental health nurses to recognize and address climate-related psychological distress is essential for promoting mental well-being in an era of accelerating environmental change.

Keywords: Climate anxiety, Eco-distress, Eco-anxiety, Mental health nursing, Environmental psychology, Climate change, Psychological resilience, Nursing interventions, Ecological grief, Sustainable healthcare

Introduction

Climate change is increasingly recognized as a major public health concern with profound implications for human health and well-being. While considerable attention has been directed toward the physical health consequences of climate change, including heat-related illnesses, infectious disease transmission, respiratory disorders, and nutritional challenges, growing evidence highlights its significant impact on mental health (Berry et al., 2018). Rising global temperatures, extreme weather events, wildfires, floods, droughts, sea-level rise, and ecosystem degradation have contributed to widespread psychological distress among populations across diverse geographical and socioeconomic settings.

The psychological consequences of environmental change have become increasingly visible in recent years. Individuals

report feelings of fear, sadness, anger, grief, helplessness, guilt, and uncertainty regarding the future of the planet and subsequent generations. These emotional responses have led researchers to identify emerging psychological phenomena such as climate anxiety, eco-anxiety, eco-distress, ecological grief, and solastalgia. Such conditions reflect the emotional burden associated with witnessing or anticipating environmental degradation and climate-related disasters (Cunsolo & Ellis, 2018).

Climate anxiety is particularly prevalent among younger generations who perceive themselves as inheriting a world characterized by environmental instability and uncertain futures. Simultaneously, communities directly affected by environmental disasters often experience profound emotional suffering resulting from displacement, loss of livelihoods, destruction of homes, and disruption of social



networks. Mental health professionals, especially mental health nurses, are increasingly encountering patients whose distress is directly or indirectly linked to climate concerns.

Mental health nurses occupy a critical position in identifying, assessing, and managing climate-related psychological distress. Their roles extend beyond symptom management to include advocacy, education, resilience promotion, trauma-informed care, community engagement, and policy development. Understanding climate anxiety and eco-distress has therefore become essential for contemporary mental health nursing practice.

Understanding Climate Anxiety and Eco-Distress

Climate anxiety refers to persistent worries, fears, and concerns regarding climate change and its anticipated consequences. Unlike traditional anxiety disorders, climate anxiety is generally considered a rational response to genuine environmental threats. It does not necessarily indicate psychopathology but may become clinically significant when it interferes with daily functioning, social relationships, occupational performance, or overall well-being (Clayton & Karazsia, 2020).

Eco-distress is a broader concept encompassing various emotional, cognitive, and behavioral reactions to environmental degradation. It includes feelings of grief over biodiversity loss, anger toward environmental inaction, guilt regarding personal environmental impacts, despair about future ecological conditions, and frustration regarding perceived inadequacies in policy responses. Eco-distress recognizes that environmental changes affect emotional health through multiple pathways beyond anxiety alone.

Researchers emphasize that climate anxiety and eco-distress exist on a continuum. Mild concern may motivate pro-environmental behaviors and civic engagement, whereas severe distress may contribute to emotional exhaustion, hopelessness, social withdrawal, and mental health difficulties. Understanding these experiences within their broader environmental and social contexts is crucial for effective nursing assessment and intervention.

Historical Evolution of Climate-Related Psychological Concepts

The relationship between environmental change and psychological well-being has been discussed for decades. Early environmental psychology research explored how natural environments influence emotional health and human behavior. However, systematic examination of climate-related psychological distress gained momentum during the twenty-first century as evidence of global climate change intensified.

The concept of "solastalgia," introduced by Glenn Albrecht in 2005, described distress experienced when individuals witness environmental changes affecting their home environments. Unlike nostalgia, which reflects longing for a distant place, solastalgia refers to distress experienced while remaining in one's home environment as it undergoes ecological transformation.

Subsequent concepts such as ecological grief and climate anxiety emerged to describe emotional responses associated with environmental loss and climate threats. Ecological grief encompasses mourning related to loss of ecosystems, species, landscapes, and environmental identities. Climate anxiety further expanded understanding by focusing on anticipatory fears regarding future climate-related consequences.

These concepts collectively illustrate the growing recognition of climate change as a psychological as well as environmental phenomenon requiring interdisciplinary responses involving healthcare professionals, including mental health nurses.

Epidemiology and Prevalence

Climate anxiety and eco-distress have been reported across various populations worldwide. Surveys consistently indicate increasing concern regarding climate change, particularly among adolescents and young adults. International studies reveal that many young people experience significant worry about climate change, with some reporting feelings of sadness, fear, anger, helplessness, and betrayal by governments perceived as failing to address environmental crises (Hickman et al., 2021).



Prevalence rates vary depending on definitions, measurement tools, cultural contexts, and exposure to environmental threats. Research suggests that individuals living in regions vulnerable to natural disasters, droughts, floods, wildfires, or rising sea levels often report higher levels of climate-related psychological distress.

Healthcare professionals themselves may experience climate anxiety due to awareness of the health consequences of environmental degradation. Mental health nurses working in disaster-prone regions may face dual burdens of supporting affected populations while managing their own climate-related concerns.

The growing prevalence of climate anxiety underscores the need for healthcare systems to integrate climate-related mental health considerations into clinical practice, education, and policy frameworks.

Causes and Determinants of Climate Anxiety and Eco-Distress

Climate anxiety and eco-distress arise from multiple interconnected factors. Direct exposure to climate-related disasters is a major determinant. Individuals experiencing floods, hurricanes, wildfires, heatwaves, and droughts often face trauma, displacement, economic hardship, and loss of social support networks, contributing to psychological distress.

Indirect exposure through media coverage also plays a significant role. Continuous exposure to alarming environmental news, images of ecological destruction, and predictions of future climate impacts can intensify anxiety and feelings of helplessness. Social media platforms frequently amplify these concerns by providing constant access to climate-related information.

Personal values and environmental identities influence emotional responses. Individuals who strongly identify with environmental protection may experience greater distress when witnessing ecological degradation. Similarly, those whose cultural traditions, livelihoods, or spiritual beliefs are closely connected to natural environments may be particularly vulnerable.

Perceived lack of governmental action, political polarization, and distrust in institutions can further exacerbate climate anxiety. Many individuals experience frustration and anger when they believe that environmental threats are not being adequately addressed by policymakers or corporations.

Socioeconomic vulnerabilities also contribute significantly. Communities facing poverty, limited healthcare access, and inadequate disaster preparedness may experience heightened climate-related stress due to increased susceptibility to environmental impacts.

Psychological Manifestations

Climate anxiety and eco-distress manifest through diverse psychological symptoms. Emotional responses commonly include fear, sadness, anger, guilt, shame, grief, frustration, helplessness, and hopelessness. These emotions may fluctuate depending on environmental events, media exposure, and personal circumstances.

Cognitive symptoms include persistent worry about future environmental conditions, rumination regarding climate scenarios, difficulty concentrating, intrusive thoughts about ecological disasters, and uncertainty regarding personal or family futures. Some individuals experience existential concerns involving questions about meaning, purpose, and humanity's relationship with nature.

Behavioral manifestations may include avoidance of climate-related information, compulsive environmental behaviors, social withdrawal, activism burnout, sleep disturbances, and reduced participation in daily activities. In severe cases, individuals may experience symptoms resembling generalized anxiety, depression, post-traumatic stress, or adjustment disorders.

Physical symptoms such as fatigue, headaches, gastrointestinal discomfort, muscle tension, and sleep disturbances may accompany psychological distress. Mental health nurses should recognize these manifestations and assess their impact on functioning and quality of life.

Vulnerable Populations

Certain populations appear particularly susceptible to climate anxiety and eco-distress. Children and adolescents



frequently report high levels of concern regarding climate change because they perceive themselves as facing long-term consequences of environmental degradation. Developmental factors may influence their ability to process and cope with complex environmental threats.

Young adults often experience distress related to career planning, family formation, and future life expectations amid climate uncertainty. Concerns regarding environmental sustainability may influence educational choices, reproductive decisions, and occupational aspirations.

Indigenous communities face unique vulnerabilities due to strong cultural, spiritual, and economic connections with natural environments. Environmental changes threatening traditional lands, biodiversity, and cultural practices can result in profound emotional and cultural losses.

Individuals directly affected by climate-related disasters experience increased risks of anxiety, depression, post-traumatic stress disorder, and complicated grief. Farmers, fishers, and others whose livelihoods depend on environmental conditions may encounter significant emotional burdens associated with ecological disruptions.

Healthcare professionals, environmental activists, researchers, and disaster responders may also experience elevated climate anxiety due to prolonged exposure to environmental challenges and responsibility for addressing their consequences.

Climate Anxiety and Existing Mental Health Disorders

Climate anxiety may interact with pre-existing mental health conditions in complex ways. Individuals with anxiety disorders, depression, obsessive-compulsive disorder, or trauma-related disorders may experience worsening symptoms in response to climate-related concerns.

Environmental threats can act as chronic stressors that exacerbate psychological vulnerabilities. For example, individuals with generalized anxiety disorder may incorporate climate concerns into broader patterns of excessive worry. Those with depressive disorders may experience intensified hopelessness regarding future environmental conditions.

Mental health nurses should distinguish between adaptive concern regarding climate change and clinically significant

psychopathology. Assessment should consider symptom severity, duration, functional impairment, coping mechanisms, and contextual factors influencing distress. Integrated approaches addressing both climate-related concerns and underlying mental health conditions are often necessary to promote recovery and resilience.

Assessment of Climate Anxiety and Eco-Distress in Nursing Practice

Comprehensive assessment is fundamental to effective nursing care. Mental health nurses should explore environmental concerns during psychosocial evaluations, particularly among individuals presenting with anxiety, depression, grief, or trauma-related symptoms.

Assessment should examine the nature and intensity of climate-related concerns, sources of information, emotional responses, coping strategies, functional impacts, and exposure to environmental disasters. Nurses should also assess social support systems, resilience factors, and opportunities for meaningful engagement in environmental action.

Open-ended questions can facilitate exploration of climate-related experiences. Patients may be asked about their feelings regarding environmental changes, concerns about the future, experiences of ecological loss, and perceptions of environmental responsibility.

Validated assessment instruments for climate anxiety are increasingly available and may support clinical evaluation. However, nurses should integrate standardized measures with individualized assessments that consider cultural, social, and environmental contexts.

Nursing Interventions for Climate Anxiety and Eco-Distress

Mental health nurses play a central role in supporting individuals experiencing climate-related psychological distress. Therapeutic communication represents a foundational intervention. Providing empathetic, nonjudgmental environments allows patients to express emotions and explore concerns openly.



Psychoeducation can help individuals understand that climate-related emotional responses are common and often represent rational reactions to environmental threats. Education regarding stress responses, coping mechanisms, and resilience-building strategies may reduce feelings of isolation and self-blame.

Cognitive-behavioral approaches can assist patients in identifying unhelpful thought patterns and developing balanced perspectives. Nurses may help individuals distinguish realistic concerns from catastrophic thinking while encouraging adaptive coping strategies.

Mindfulness-based interventions have demonstrated effectiveness in reducing anxiety and enhancing emotional regulation. Techniques such as mindful breathing, meditation, grounding exercises, and nature-based mindfulness practices may alleviate distress and promote psychological well-being.

Strength-based approaches emphasize personal resilience, community resources, and opportunities for meaningful action. Encouraging participation in environmental initiatives can transform helplessness into empowerment and foster a sense of purpose.

Building Psychological Resilience

Resilience plays a critical role in mitigating climate-related psychological distress. Psychological resilience refers to the capacity to adapt positively despite adversity, uncertainty, and environmental challenges.

Mental health nurses can promote resilience by strengthening coping skills, fostering social connections, enhancing self-efficacy, and encouraging adaptive problem-solving. Community engagement and collective action often provide emotional support and opportunities for shared meaning-making.

Nature connectedness represents another important resilience factor. Spending time in natural environments has been associated with reduced stress, improved mood, and enhanced psychological well-being. Nurses may encourage safe and accessible interactions with nature as part of holistic care plans.

Hope-centered interventions are also valuable. Cultivating realistic hope involves acknowledging environmental challenges while recognizing opportunities for adaptation, innovation, and positive change. Such approaches can counteract despair and promote sustained engagement in environmental solutions.

Community and Public Mental Health Perspectives

Climate anxiety and eco-distress are not solely individual experiences but also community-level phenomena. Communities affected by environmental disasters often experience collective grief, trauma, and uncertainty. Public mental health approaches are therefore essential.

Mental health nurses can contribute to community resilience initiatives by participating in disaster preparedness programs, conducting mental health education campaigns, facilitating support groups, and collaborating with community organizations.

School-based interventions can support children and adolescents experiencing climate-related concerns. Educational programs promoting environmental literacy, emotional resilience, and constructive action may reduce anxiety while fostering empowerment.

Community engagement efforts should prioritize inclusivity, cultural sensitivity, and equity. Vulnerable populations require targeted support to address disproportionate climate-related risks and mental health impacts.

The Role of Mental Health Nurses in Climate Advocacy

Mental health nurses possess unique opportunities to advocate for policies and practices that protect both environmental and mental health. Advocacy efforts may involve promoting climate-informed healthcare policies, supporting disaster preparedness initiatives, and addressing social determinants of vulnerability.

Nurses can contribute valuable perspectives regarding the mental health consequences of environmental change. By participating in interdisciplinary collaborations, policy discussions, and public education campaigns, mental health nurses can help ensure that psychological well-being



remains central to climate adaptation and mitigation strategies.

Environmental sustainability within healthcare systems also represents an important area of nursing leadership. Sustainable healthcare practices can reduce environmental impacts while demonstrating institutional commitment to planetary health.

Educational Implications for Mental Health Nursing

As climate-related mental health concerns become increasingly prevalent, nursing education must evolve accordingly. Undergraduate and postgraduate curricula should incorporate content addressing climate change, environmental health, ecological psychology, disaster mental health, and climate-related distress.

Training should equip nurses with knowledge regarding climate science, psychological impacts of environmental change, assessment methods, therapeutic interventions, and advocacy skills. Simulation exercises, case studies, and community-based learning experiences can enhance preparedness for climate-related mental health challenges.

Continuing professional development programs are equally important for practicing nurses. Ongoing education ensures that mental health professionals remain informed regarding emerging evidence and best practices.

Research Gaps and Future Directions

Although research on climate anxiety and eco-distress has expanded rapidly, significant knowledge gaps remain. Standardized definitions and measurement tools require further refinement to facilitate comparison across studies.

Longitudinal research is needed to understand the trajectories of climate-related psychological distress over time. Additional studies should explore protective factors, intervention effectiveness, cultural variations, and impacts among diverse populations.

Nursing research can contribute significantly by examining assessment approaches, therapeutic interventions, resilience-building strategies, and community-based programs. Evidence generated through nursing scholarship can inform practice guidelines and policy development.

Future investigations should also explore technological innovations, digital mental health interventions, and interdisciplinary collaborations addressing climate-related psychological challenges.

Conclusion

Climate anxiety and eco-distress represent emerging psychological responses to one of the most pressing global challenges of our time. While concern regarding environmental degradation is often an adaptive and rational reaction, persistent or overwhelming distress can significantly affect mental health and daily functioning. Increasing exposure to climate-related disasters, environmental uncertainty, and ecological loss has amplified the need for healthcare professionals to address climate-related psychological consequences.

Mental health nurses are uniquely positioned to recognize, assess, and manage climate anxiety and eco-distress through therapeutic communication, psychoeducation, resilience promotion, advocacy, and community engagement. Their contributions extend beyond individual patient care to encompass public health initiatives, policy advocacy, disaster preparedness, and environmental sustainability efforts. Strengthening climate-informed mental health nursing practice is essential for supporting individuals and communities facing environmental uncertainty.

As climate change continues to influence psychological well-being globally, integrating climate-related mental health considerations into nursing education, research, and practice will become increasingly important. By fostering resilience, hope, and adaptive coping, mental health nurses can play a transformative role in promoting mental well-being in an environmentally changing world.

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